

**A critical assessment of female middle school mathematics
and science teachers' perspectives of the Abu Dhabi education
reform programme and the use of English as a medium of
instruction.**

Submitted by

Nina Leon Sanassian (Dermenjian)

to the University of Exeter as a thesis for the degree of

Doctor of Education

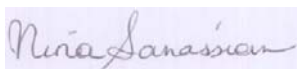
in the Teaching of English to the Speakers of Other Languages

October, 2011

This thesis is available for Library use on the understanding that it is copyright material
and that no quotation from the thesis may be published without proper
acknowledgement.

I certify that all material in this thesis which is not my own work has been identified and
that no material has previously been submitted and approved for the award of a degree
by this or any other University.

Signature:

A handwritten signature in blue ink, reading "Nina Sanassian", is placed over a light purple rectangular background.

Acknowledgement

Without the support of an extraordinary group of people, this thesis would have never been possible.

I would like to thank my supervisor, Salah Troudi, for his guidance and encouragement along this strenuous journey.

I would also like to thank my friend Ki for her tremendous technical and moral support.

I am eternally grateful to my friend Michel who helped with his brilliant critical feedback and superb editing remarks.

Also no words can express my utmost gratitude to my friend Mark who patiently guided me through every step of this arduous task, challenging every thought, every sentence. I am forever indebted to him.

Finally, this thesis would have *never* been possible without the constant moral support of my caring husband, Joseph and my loving children Maral, Nerses, Annie and Sareen.

Abstract

The Ministry of Education in Abu Dhabi launched an extensive reform initiative developed by the Abu Dhabi Education Council (ADEC) in partnership with international operators. The reform has introduced innovative teaching methodologies, modern books, a new curriculum and the use of English as a medium of instruction (EMI) in mathematics and science classes.

The research carried out for this thesis investigated 11 Emirati female teachers. The data was collected from interviews and several informal observations carried out in a public middle school in a town outside Abu Dhabi city, UAE. The rationale for this study is to critically investigate the effects that rapid reform is having on the performance of the female teachers in the classroom and the impact of this speedy reform on their professional and personal lives so as to highlight differences between reform theory and practice. This study is significant because few studies on female teachers in a Gulf educational reform environment have been undertaken and it is essential to uncover the foreign and non-egalitarian nature of the reform programme. Therefore, the study's aims are to highlight teacher perspectives and teacher marginalization, EMI and consider whether the reform is being implemented successfully at the classroom level. Of course, an important aim of this critical study has also been to raise the consciousness of those participating in the reform.

This study has revealed mostly negative perceptions regarding the Abu Dhabi education reform programme, in particular with teachers' perceptions of the work environment and the new pedagogy. It has also disclosed several instances of teacher marginalization as the result of a top-down reform and has exposed a prevailing sentiment of teacher disempowerment because of the presence of foreigners operating in the country. Teacher perceptions regarding EMI have been numerous in particular with cultural issues relating to the use of EMI in mathematics and science classes. Surprisingly, the study revealed a few unexpected positive findings with certain aspects of reform.

Contents

Acknowledgement	2
Abstract	3
Contents	4
List of Figures	8
List of Abbreviations	9
CHAPTER 1	10
INTRODUCTION	10
1.1 Rationale	10
1.2 The significance of the study	11
1.3 Research aims and questions	12
1.3.1 The primary research aims	12
CHAPTER 2	14
CONTEXTUAL BACKGROUND	14
2.1 A brief historical overview on the UAE	14
2.2 A brief historical overview of schools and education in the UAE	16
2.3 The Abu Dhabi Education Zone (ADEZ)	16
2.4 The Abu Dhabi Education Council (ADEC)	18
2.5 The Public-Private Partnership (PPP)	19
2.6 School Improvement Partnership (SIP)	21
2.7 A summary of the monitoring agencies	21
2.8 Key Performance Indicators (KPI's)	22
2.9 Public School: Al Farfar Preparatory School	23
2.10 The teachers of Al Farfar	23
2.11 Students at Al Farfar	25
CHAPTER 3	26
THE LITERATURE REVIEW	26
3.1 Critical theory	26
3.1.1 Critical Applied Linguistics (CALx)	27
3.1.2 Power and critical pedagogy	29
3.1.3 Critical Research	31
3.1.4 Critical consciousness-raising	33
3.1.5 Empowering teachers	35
3.2 Reform	37
3.2.1 Definition of educational reform	37
3.2.2 Definitional disagreements	38
3.2.3 Problems in educational reform	39
3.2.4 The problem of top-down power and teacher marginalization	39
3.2.5 Other problems in Implementation: imposing control over the development process- marginalizing the context	41
3.2.6 Other problems in implementation: Changing teacher beliefs and ignoring teacher core values	42

3.2.7	The problem of imposing Western/foreign pedagogical models	44
3.3	Examples of successful international cases.....	45
3.4	The status of English and the use of EMI in the UAE	48
3.4.1	The reasons behind the use of English as a Medium of Instruction (EMI)	48
3.4.1.1	Reason 1: Linguistic imperialism/neo-imperialism.....	48
3.4.1.2	Reason 2: Global economic status	51
3.4.2	Problems generated by implementing EMI	52
3.4.2.1	Problem1: Arabic language as the mother tongue.....	53
3.4.2.2	Problem 2: Culture and identity	55
3.4.2.3	Problem 3: Complexities of societal turmoil	56
3.5	Theoretical framework.....	57
3.5.1	Fullan's use of complexity theory and its relevance to this case study	58
3.5.2	Applicability of aspects of Fullan's model to this study's theoretical framework	60
3.5.3	Fullan's model	61
3.5.4	The attributes of Fullan's model	62
3.5.5	The weaknesses of Fullan's model	63
CHAPTER 4.	.....	65
RESEARCH METHODOLOGY	.....	65
4.1	The paradigm appropriate to this study	65
4.1.1	The theoretical position of this study.....	66
4.1.2	Reflexivity /raised consciousness	67
4.2	Research questions.....	68
4.3	Research design.....	68
4.4	Case study	69
4.5	Research methods and data collection procedures.....	70
4.5.1	Interviews	70
4.5.1.1	Semi-structured interviews.....	72
4.5.1.2	More details on the nature of the interviews conducted.....	72
4.5.1.3	Sampling	73
4.5.1.4	Interview data analysis	75
4.5.1.5	The coding of the interview data.....	76
4.6	Observations.....	78
4.6.1	Documents	79
4.7	Limitations	80
4.7.1	Transcribing.....	80
4.7.2	Generalisability.....	80
4.7.3	Sample size	81
4.8	Trustworthiness and credibility: Triangulation	82
4.9	Ethical considerations.....	83
CHAPTER 5.	.....	85
RESULTS AND DISCUSSION	.....	85
5.1	Teachers' perceptions regarding the Abu Dhabi reform.....	85

5.1.1	Negative attitudes towards the work environment and about the physical context of the school.....	87
5.2	Teacher perceptions regarding marginalization and disempowerment	90
5.2.1	Teacher perceptions regarding imposed Top-Down Reform	90
5.2.2	Marginalization and teacher perceptions of ‘not feeling involved in the reform process’	94
5.2.3	Teacher resistance to change.....	94
5.2.4	Teacher perceptions regarding a foreign presence: “I feel paralyzed...”	95
5.2.5	Additional demands on teachers’ role.....	98
5.2.6	Differences between local cultural demands and the reform programme.....	100
5.2.7	Different perspectives regarding changes between the old and the new education systems.....	103
5.3	Teacher perceptions regarding English as a medium of instruction (EMI).....	106
5.3.1	The extent to which teachers are willing to use English as a medium of instruction (EMI).....	107
5.3.2	The political/economical aspect of EMI.....	109
5.3.3	Marginalizing the Arabic language/the mother tongue	111
5.3.4	The role of Arabic in the Abu Dhabi education reform as opposed to EMI.....	112
5.3.5	Factors that hinder the use of EMI: The significance of culture and identity vis-a-vis EMI.....	113
5.3.6	Factors that hinder the use of EMI: How teachers cope with teaching mathematics and science in English	115
5.3.7	An additional obstacle to the use of EMI: How do teachers cope with the International English Language Testing System (IELTS)	119
5.4	Additional findings regarding teachers’ perspectives towards curriculum	122
5.5	Positive results	125
5.5.1	Some teachers acknowledge the need for reform and implement change in pedagogy and EMI.....	125
5.5.2	Positive use of new pedagogy and EMI in mathematics and science classes.....	127
5.5.3	Positive use of EMI in mathematics and science classes	128
5.5.4	Paradoxical admiration of the West.....	129
CHAPTER 6	.....	132
IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS.....		132
6.1	Summary of key findings.....	132
6.2	Implications of this study.....	133
6.2.1	Implications of negative attitudes towards reform	133
6.2.1.1	Implications of negative attitude towards the work context.....	133
6.2.2	Implications of teacher marginalization.....	133
6.2.2.1	Implications of teacher perceptions regarding imposed top-down reform	134
6.2.2.2	Implications of teacher perceptions of ‘not being involved in the reform processes’	134
6.2.2.3	Implications of employing foreigners as reform agents	135
6.2.2.4	Implications of negative teacher perceptions about changes in the new pedagogy	135
6.3	Implications of teacher perceptions regarding EMI.....	136
6.3.1	Implications of the extent of the use of EMI in mathematics and science classes	136
6.3.2	Implications of the role of Arabic in the Abu Dhabi education reform as opposed to EMI.....	137
6.3.3	Implications of factors that hinder the use of EMI.....	137

6.4	Other Implications of this study	138
6.4.1	The model is wrong:.....	138
6.4.2	Intellectual consumerism/huge investments	138
6.4.3	Problem solving solutions derived from ‘technology mentality’	138
6.4.4	Empowerment issues.....	139
6.4.5	Parents/community need to be better informed about the nature of reform	139
6.4.6	It is possible to reform curriculum without imposing a foreign language	140
6.5	Recommendations	140
6.5.1	Teachers are an integral part of reform.....	140
6.5.2	ESL instead of EMI	141
6.5.3	Reform is imperfect and complex	142
6.6	The theoretical contribution of the study	142
6.6.1	Some suggestions to democratise Fullan’s theoretical framework	142
6.6.2	The theoretical contribution to this thesis: The New Critical Teacher-Centered Reform Model.....	144
6.7	Critical conclusions.....	147
6.7.1	Economic/business aspect of reform.....	147
6.7.2	Social aspect of reform.....	148
6.7.3	Cultural aspect of reform.....	149
6.7.4	Political aspect of reform	150
6.8	My journey through the thesis and its future scope	151
	Appendix A Certificate of Ethical Research Approval.....	154
	Appendix B Key Performance Indicators	157
	Appendix C Interview Data.....	158
	Appendix D Asia’s Diary: 24 th September, 2008	173
	Appendix E Ebtisam’s Diary: 24 th September, 2008	174
	Appendix F Letter to ADEC.....	175
	Appendix G Report on Teachers’ School Vision.....	176
	Appendix H Jamila’s IELTS Comments.....	177
	Appendix I Kalmah’s IELTS Comments	178
	Appendix J Curriculum and Assessment Summary.....	179
	Appendix K Jamila’s Curriculum Comments	180
	Appendix L Ebtisam’s Diary: 7 th April, 2008.....	181
	Appendix M Asia’s Diary: 7 th May, 2008.....	182
	Appendix N Ghalya’s Observation Sheets (8 th March, 2008)	183
	Appendix O Ghalya’s Observation Sheets (14 th October, 2009).....	184
	REFERENCES	185

List of Figures

Figure 1 Fullan's(2003, p. 71) Model of theoretical framework: Three policy sets for educational transformation	61
Figure 2 Sample of Common Interview questions.....	76
Figure 3 Categories and Sub categories of interview questions.....	76
Figure 4 New Critical Teacher-Centered Reform Model adapted from Fullan's model of educational transformation	146

List of Abbreviations

ADEC	Abu Dhabi Education Council
ADEZ	Abu Dhabi Education Zone
ASCD	Association for Supervision and Curriculum Development
BICS	Basic Interpersonal Communication Skills
CALPS	Cognitive Academic Language Proficiency Skills
CALx	Critical Applied Linguistics
CARE	Cooperative For Assistance And Relief Everywhere
CfBT	Council for British Teachers
CIDA	Canadian International Development agency
EDUCO	Educacion con Participacion de la Comunidad
ELF	English Language Fellow
EMI	English as a Medium of Instruction
ECSSR	The Emirates Center for Strategic Studies and Research
ETARE	Technical Support Team of Educational Reform
FNC	Federal National Council
GCC	Gulf Cooperation Council
KPI's	Key Performance Indicators
LSCs	Local School Councils
MENA	Middle East and North Africa
NCERD	National Center for Educational Research and Development
NIE	Singapore's National Institute of Education
PD	Professional development
PISA	Programme for International Student Assessment
PPP	Public-Private Partnership
PRONADE	Programa Nacional de Autogestion para el Desarrollo Educativo
SIP	School Improvement Partnership
TAFE Global	Technical and Further Education Global
UAE	United Arab Emirates
UAEU	United Arab Emirates University
UNESCO	United Nations Educational, Scientific and Cultural Organisation
US/USA	United States/United States of America
USAID	United States Aid International Agency
WEF	World Economic Forum

CHAPTER 1.

INTRODUCTION

“The greatest use that can be made of wealth is to invest it in creating generations of educated and trained people.”

(Sheikh Zayed Bin Sultan Al Nahyan, founder of the UAE, n.d.)

The United Arab Emirates Department of Education is currently investing millions of dollars in educational reform to revamp its public education system. It aims to change and improve the curriculum and teaching methodology in the public school system as well as to introduce English as a medium of instruction in mathematics and science. This thesis seeks to critically assess the effects that this rapid reform is having on female teachers and their performance in schools.

In four years of work as a consultant with one of the Public-Private Partners (PPP) in the Student Improvement Partnership (SIP), I have worked closely with teachers in a public middle school, under the governance of the Abu Dhabi Education Council (ADEC). During this time I have been able to pinpoint weaknesses in the reform programme as it seeks to upgrade the standard of education throughout the Abu Dhabi Emirate. Although this reform promotes internationally recognised pedagogical standards and provides an ideal blueprint for systemic change, my first-hand experience with SIP and daily interaction with teachers in the public school system has revealed some discrepancies.

1.1 Rationale

The rationale of this critical study is to better understand the effects of the Abu Dhabi education reform initiative on the middle school female teachers with whom I work. The Abu Dhabi education reform aims to change and improve the public education system, by making changes to the curricula and introducing English as the medium of instruction in mathematics and science. This also involves using new teaching methodologies and interactive books. Thus, simply stated, the aim of this reform is to create an improved learning and teaching environment for students and teachers alike.

The study's focus on the female teachers is a consequence of my work context. I work in an all-female middle school. The teachers are mostly Emirati female teachers who are overwhelmed with the educational changes imposed on them while they are bound by their traditional role as wives, mothers, daughters and/or sisters. The reform is forcing teachers to embrace changes that they have not been prepared for nor have been involved in setting. For example, teachers are being asked to develop new ways of teaching, learn more English, increase their knowledge of the many subjects in the new curriculum and undergo rigorous and regular training. In essence, the reform is asking them to work harder. This is particularly problematic with female teachers who need to balance work responsibilities with considerable domestic ones, especially in Muslim families where women are expected to play traditional female roles at home. This group of people seems to have been ignored by the Abu Dhabi education reform programme. Consequently, I believe that this study will give these female teachers a voice to be heard and acknowledged.

It is crucial to investigate the female teachers' perspective of the reform and it is hoped that a critical investigation such as this will highlight the gap between reform on paper and reform in practice. This thesis will also provide realistic recommendations to improve the social, emotional and personal needs of individual teachers, especially female teachers, who are often ignored in reform programmes.

1.2 The significance of the study

There are gaps between the Abu Dhabi education reform objectives and the reality on the ground. This study is significant because it will shed some light on the causes of the gap between reform and its implementation. This investigation is important considering that little research on this topic is available, nor has a great deal of it been carried out in the Gulf region.

Another significant consideration is the fact that any large scale reform programme needs to involve all its participants in order to guarantee a better rate of success. However, the Abu Dhabi education reform is a top-down reform programme which has not encouraged teacher involvement nor has it informed the public adequately and sought appropriate public support. This study can highlight the undemocratic nature of the programme.

In addition, it is meaningful and informative to analyse how a large-scale reform programme impacts on culture and heritage especially when a reform programme is being implemented by foreign consultancy bodies and imposes a foreign language. The introduction in the schooling system of English as a medium of instruction must be critically evaluated since the long-term effects of this language policy can alter the identity of the Emirati/Arab students.

1.3 Research aims and questions

This thesis will investigate some of the factors that explain, from the teachers' perspective, the gap between the Abu Dhabi education reform objectives and the realities of the classroom with evidence collected from primary and secondary sources.

1.3.1 The primary research aims

The first aim of this study is to critically explore the perspectives of the teachers participating in the study with regard to their attitude to reform.

The second aim of the research is to find out the extent to which the Abu Dhabi education reform programme marginalizes female mathematics and science teachers and disempowers them.

The third aim is to consider the teachers' opinions regarding the use of English as a medium of instruction (EMI). The aim is to determine whether the use of EMI is proving to be successful and whether there are factors inhibiting its use.

Specific questions that will be asked in order to realize the study's aims:

- 1) What is the perspective of the mathematics and science teachers in regards to Abu Dhabi education reform?
 - a. To what extent are teachers ready to implement reform?
 - b. To what extent are teachers disempowered by their work environment?
- 2) To what extent does Abu Dhabi education reform marginalize teachers?
 - a. To what extent were teachers involved in any of the decision making regarding reform?
 - b. To what extent were teachers disempowered?
 - c. Do teachers see any changes between the old and the new system?

- 3) What is the perspective of mathematics and science teachers in regards to using English as a medium of instruction?
- a. To what extent are teachers willing to use English as a medium of instruction?
 - b. To what extent does EMI affect the Arabic/Emirati language and culture?
 - c. Are there any factors that may hinder the use of EMI?

Therefore, the study's aims are to highlight teacher perspectives and teacher marginalization, EMI and consider whether the reform is being implemented successfully at the classroom level. Specific questions relating to these topics will be addressed in the course of the study.

CHAPTER 2.

CONTEXTUAL BACKGROUND

It is estimated that by 2020 there will be almost 100 million job opportunities in the Middle East. Therefore, the UAE government has begun focusing attention on the need for a high quality education to supply a skilled workforce to fill these posts.

(Stapleton, 2008)

This quotation illustrates massive anticipated expansion in future employment and partly explains why millions of Dirhams, the local currency of the United Arab Emirates, are being invested to develop and improve the public education system in the country in order to prepare Emiratis for work in an increasingly competitive global economy. To understand why this educational reform is undertaken, it is necessary to consider the UAE education system since the country's establishment on December 2nd, 1971, in particular, the creation of the Abu Dhabi Educational Zones (ADEZ) and the recent and increasingly prominent role of the Abu Dhabi Education Council (ADEC). This chapter will briefly discuss the role of the public private partnership (PPP) consulting firms, and the monitoring agencies such as Penta International and Tribal. Also, the consulting company, School Improvement Partnership (SIP) and the work SIP consultants do in local schools will be discussed. The final section will focus on the mathematics and science female teachers who work with these consultants in the Al Farfar Girls Preparatory School in the Emirate of Abu Dhabi, where the subjects were interviewed.

2.1 A brief historical overview on the UAE

For centuries, the British, Dutch and Portuguese colonial powers sought influence in the Gulf. At that time, the lives of most Emiratis were simple, and they lived under harsh desert conditions. Many lived in modest 'barasti' homes and mud huts. The economy of the interior, areas such as Abu Dhabi, depended mainly on camel herding and the production of dates, while the coastal areas depended on fishing and pearl diving.

The discovery of crude oil had a significant impact on the wealth of the region's economies. The British were eager to enhance their economic and military treaties with local sheikhs, in particular, Sheikh Zayed, the new leader of the Trucial States, who was

elected on August 6, 1966 (Al Fahimi, 2004). Within a decade, on December 2, 1971, the Trucial States formed a federation uniting the Emirates of Abu Dhabi, Dubai, Sharjah, Ajman, Umm al-Quwain and Fujairah. One year later the last Emirate, Ras al-Khaimah, joined and the United Arab Emirates came into existence.

The impact of this new found wealth was tremendous. The UAE became an important oil producing country which, as Sheikha Lubna Al Qasimi stated in a 2008 New York Global Leadership Summit, has created in the country “...significant economic and societal growth,” Gerson (2008, p. 1) reports in *The National*. In fact, the Abu Dhabi Emirate is perhaps the most influential and powerful of all the Emirates because it has most of the oil and gas resources of the country and controls 70% of the country’s resources. This wealth has attracted almost three million expatriate workers. In fact, the UAE has a diverse expatriate population mainly from the sub-continent such as Indians, Pakistanis and Sri Lankans. Smaller numbers of ethnic Arabs such as Egyptians, Jordanians, Syrians, Lebanese and Palestinians, live in the country as do a considerable number of Europeans such as the French, especially the British and others from North America, South America, Australasia and Africa. This influx of foreigners has had linguistic implications, with English becoming increasingly important.

Given the huge number of expatriates and the UAE’s economic growth, English has become increasingly necessary in all areas of life, including education. In fact, Troudi (2009) explains that “because of the social fabric of the Emirati society, with almost 75% expatriates from different countries and therefore from different linguistic backgrounds, Emiratis need to use English as lingua franca to communicate with some of the non-Arabic speaking expatriates” (p. 3). Global markets and the use of English internationally is also a reason for its increasing use in the country. Benjamin Baez (2008), during his presentation at TESOL Arabia Conference, quoted the British Council’s chairman who stated that

Our language is our greatest asset, greater than North Sea Oil, and the supply is inexhaustible; furthermore, while we do not have a monopoly, our particular brand remains highly sought after. I am glad to say that those who guide the fortunes of this country share my conviction in the need to invest in, and exploit to the full, this invisible, God-given asset.

Hence, English has gained political and economic clout in the country and internationally. Consequently, the country's education programmes are now promoting the use of the English language, in particular in ADEC's new educational reform agenda. English has become, alongside the country's official language, Arabic, the means of instruction in mathematics and science in most government schools under the reform programme.

2.2 A brief historical overview of schools and education in the UAE

The first teachers in the area were known as "mutawas" and "muttawwaas" and taught children in religious schools. These teachers were later replaced by scholars whose expertise went beyond religious studies, they taught history and grammar. These types of schools, Ghazal (2010) writes, "were founded in 1935, by Sheikh Mohammad bin Ali al Mahmood, a religious and intellectual pioneer" (p. 3), but they operated outside a formal education system. However, in 1953, all educational institutions were united using set curricula and tests that were run by locally-established education departments and teachers were recruited from the rest of the Arab world. After the country was founded, the Ministry of Education and Youth was established by a decree from the late Sheikh Zayed Bin Sultan Al Nahyan to govern education on a federal level (Al Taboor, 2008).

Since its founding, in 1971, the Ministry of Education has overseen all educational needs of the country in the seven Emirates. In its efforts to modernize and reform the education of its citizens, providing enormous public funding, the government created a body to manage education in each Emirate. In the Abu Dhabi Emirate, this body is known as the Abu Dhabi Education Zone (ADEZ).

2.3 The Abu Dhabi Education Zone (ADEZ)

The Abu Dhabi Education Zone (ADEZ) was established in the beginning of the 1980s. The ADEZ website provides a broad range of information on schools in the UAE. ADEZ has 138 public schools under its patronage with approximately 66,000 students. It has 61 all-female schools with 31,383 students and 61 all male schools with 30,895 students. In addition, ADEZ has 16 nurseries with 3,812 children and private schools and other educational institutes.

Geographically, ADEZ caters to the needs of all students in the Emirate of Abu Dhabi, which is divided into the three zones: Abu Dhabi, Al Ain and the Western Zones. Its aim is to provide educational leadership and services and to ensure the needs of teachers and students in the public schools. It also offers other school-related services. ADEZ aims to provide quality education that guarantees successful educational outcomes. However, in the midst of writing this thesis, in January 2009, ADEZ has ceased to exist as the leading educational force and has been incorporated into the new Abu Dhabi Education Council (ADEC).

Two major problems in the public education system have led to an overhaul of the old system. Firstly, education has failed “to inspire students with a sense of pride and a yearning to succeed” *The National* website (2008) reports. One possible reason for this failure is the fact that the system has not been able to motivate the Emirati learners who are not extrinsically motivated. For example, as a result of the discovery of oil in the Gulf region, and in particular in Abu Dhabi, many young Emiratis have received a free education or found government subsidized jobs. Midraj, Midraj, O'Neill and Sellami (2008) explain that, “the relationship between attitudes, motivation and proficiency is complex, and very much grounded in the socio-cultural milieu and the learners' position within it” (3). This affluence can somewhat explain the difficulty educators have inspiring some Emirati students.

Another possible reason for the failure of the public education system could be the fact that it is outdated and needs overhauling. The latter seems to be a universal problem. The Co-Director of Change Leadership Group, Tony Wagner (2008), from the Harvard Graduate School of Education remarked:

Even our 'best' schools are failing to prepare students for 21st-century careers and citizenship. It's time to hold ourselves and all of our students to a new and higher standard of rigor, defined according to 21st-century criteria. It's time for the teaching profession to advocate for accountability systems that will enable us to teach and test the skills that matter most. Our students' futures are at stake.

Consequently, education in the Emirates has forced many "...Emirati parents [to abandon] the state school system and place their children in private schools," (Lewis, 2009) because they are dissatisfied with public school standards. A report by Barber and Mourshed (2007) on 'How the world's best performing school systems come out on top,' stated that there was educational failure in the GCC countries of Qatar, Bahrain, Saudi Arabia, Kuwait and the United Arab Emirates. Students from regional schools record mathematics and science results below international standards. In addition, an article in the *Arabian Business.com* by Ferris-Lay and Glass (September, 2008) reported such low performance of regional schools also in English and Arabic. Of course, it is rather pertinent in a critical study such as this, to question the authority of 'those' who decide on the 'international standards,' standards that are usually drawn by larger Western countries, who are poised to earn a lot of money running tests to confirm standards. To address the issue of foreign intervention in Emirati education, Maryam Lootah, an assistant professor of political science at the UAE University was quoted by Salama (2010) in *Gulf News.com* as follows, "After four decades of attempts to develop education in the UAE, the educational system is failing far too many people. It is in response to this failure that the education policy in the UAE should be home-grown to meet our needs and create good citizens."

As a result of this reported failure of the public school system to deliver competitive education, the Ministry of Education has launched a new educational council and a new reform educational policy to improve the standards of thousands of Emirati students in the UAE. According to the regional editor of Oxford Business Group, Oliver Cornock, "Governments are now recognising the need to invest in a knowledge-based economy at its most basic level. Last year, the UAE committed \$7.7 billion of its federal budget to the education sector, representing 25 percent of its overall budget," Ferris-Lay and Glass (2008) report. In its efforts to upgrade public education, the government of Abu Dhabi launched the Abu Dhabi Education Council, (ADEC). As of 2008, ADEC assumed the role of ADEZ from the Ministry of Education.

2.4 The Abu Dhabi Education Council (ADEC)

ADEC was established by a presidential decree, in September 2005, in order to develop and implement educational changes. The leader of the UAE, Sheikh Khalifa al Nahyan, has defined education as "a pillar that will enable Abu Dhabi to meet standards of

excellence achieved in the most highly educated countries of the world,” on the Abu Dhabi Executive Council General Secretariat online policy and strategy/social and human resources guidelines (General Secretariat Executive Council Emirate of Abu Dhabi, 2011). ADEC has assumed the responsibility of delivering these standards of success especially by launching its 10 Year Strategic Plan (Abu Dhabi Education Council, 2009).

ADEC’s philosophy seeks to provide the best level of education and learning opportunities to all. The ADEC website provides ample information on the activities of the Abu Dhabi Education Council and Abu Dhabi education reform. The country has achieved economic and social growth since its formation 38 years ago; however, times have changed according to the Director General of ADEC. He says, “in order to be at the forefront of global innovation and development, we must have an education system that can support a community of life-long learners and innovators.” Interestingly, the following quote from the founder of the UAE is quoted by him, on the ADEC website:

No matter how many buildings, foundations, schools and hospitals we build, or how many bridges we raise, all these are material entities. The real spirit behind progress is the human spirit, the able man with his intellect and capabilities...

Sheikh Zayed Al Nahyan (n.d.)

2.5 The Public-Private Partnership (PPP)

ADEC is involved in many educational projects; however, one of the most significant roles that it has played is its partnership programmes with expert private education providers working on a project known as Public-Private Partnership (PPP). The PPP project in the UAE is an educational reform programme that includes public schools from kindergarten (KG) to high school. Thirty public schools were selected in the initial pilot project in 2006 between KG and grade 5 in the three educational zones, according to the *Middle East Educator Magazine* May 2007 issue. The following year, in 2007, 31 new schools at the grades six to nine levels were added, followed by high schools in 2008. Many new schools at various levels, 176 in all, have been added since then. At present, the new partnership programmes have different terms and conditions and are on the verge of being phased out.

This partnership involves several consulting firms such as SIP, Sabis, CfBT, Mosaica, Nord Anglia and Cognition. Though it may seem odd that foreign firms are managing education at a national level, these PPP companies have been hired by the UAE government to create a model of educational development that will improve Abu Dhabi's public education system. Even ADEC admits on its site that it requires the use of outsiders affirming that PPP seeks to, "...use the expertise of private school operators in enhancing public schools operations." Also, foreign consultants have been used to create the new curriculum and this has been developed by an Australian group from the New South Wales Department of Education and Training known as Technical and Further Education Global (TAFE Global).

Literature on educational reform provides several examples of educational change run by internal, domestic organizations. For instance, Singapore's National Institute of Education (NIE) provided training for its teachers by Singaporeans. Another example is the National Center for Educational Research and Development (NCERD) in Lebanon that provided reform policy changes in curricula and other aspects of education derived by teachers from the private and public school systems. However, a recurring reality in the GCC countries is that foreign consultancy firms, not local education consultants, are involved in domestic education reform. In fact, these foreign consultants seem to be reinforcing the idea that the "new curriculum standards" in the Gulf countries should be "based on international benchmarks", Barber, Mourshed and Whalen (2007, p. 47) report. For example, in an effort to catch up with the rest of the world, Qatar recruited the consultancy firm Council for British Teachers (CfBT) to implement foreign-based reform. Similarly, there have been public-private partnership projects in other Arab countries such as Jordan and Egypt with the World Economic Forum (WEF) communities to implement foreign conceived educational changes.

Similarly, the UAE has invited international consultancy firms to help implement reform in order to raise the standards of education. Therefore, the goal of the consulting firms is to work with ADEC to manage the quality of education in the public schools in all three educational zones of the Emirate of Abu Dhabi, more specifically, Abu Dhabi city, Al Ain and the Western Region. The goals of this partnership, according to the Penta International/Abu Dhabi site, are to increase both 'student achievement' and 'parent and community involvement', 'to strengthen the quality and quantity of Nationals in teaching' and 'to preserve and promote national heritage and culture.'

However, as I write this thesis, the role of the partnership firms is being slowly phased out and will end by the end of the 2010-2011/2011-2012 scholastic years when ADEC takes over all school operations directly.

2.6 School Improvement Partnership (SIP)

SIP is one Public-Private Partnership (PPP) provider that works with ADEC and the local public schools in order to improve their education system. At the time that this paper was written, SIP had 18 contractual agreements with local public schools in the Emirate of Abu Dhabi. Each public school has a team of SIP consultants situated within the school. Each team has its translator, Mathematics, English, Science consultants, its ESL specialist and the team leader, also known as the management advisor (MA) or head provider, who works with the principal and the vice principals. In addition, some SIP teams have Physical Education and behaviour consultants. SIP provides a range of consulting services such as developing curriculum, professional training, and providing alternative assessment techniques. Most importantly, SIP invests in relationships with the school teachers and managers in order to understand their “requirements and in turn provide a sound basis for the development of a strong, confidential, professional relationship ...working in partnership...” the GEMS website explains.

2.7 A summary of the monitoring agencies

SIP is one of the providers that is supervised by the assigned monitoring agencies such as Penta International, Piscari and Tribal. These agencies have had the responsibility to hold both providers and schools accountable to the partnership policies dictated by ADEC. The objective seems to be straightforward and, by liaising with schools and implementing ADEC educational guidelines, it involves determining “...whether the providers are doing what they promised to do and meeting the Partnership’s goals” (ADEC site).

These agencies visit schools regularly and provide comprehensive reports to encourage better reform practices. These visits are mostly pre-announced and a team of up to 4 people visit the school for a few consecutive days. Monitors visit as many classes as possible, including English, science, mathematics and IT and they meet with the principal and head provider to give feedback to them. Feedback on what providers need to do is sent to the MA who shares it with the consultants in an effort to improve the

coaching they offer teachers. Inspectors check a list of expectations assigned by ADEC known as Key Performance Indicators (KPIs) that clearly define what is expected. Obviously, the main purpose of such visits is to ensure that schools as a whole and teachers in particular perform up to their potential.

These monitoring agents are representatives of mostly Western agencies who fly in and out of Abu Dhabi for a few days to do their job. Some agents have been very realistic in their monitoring of the KPIs, aware of the Emirati reform context because they have worked in the Middle East or the Gulf region, while others have been ignorant of the local context and have ignored comments from reform participants. As the Abu Dhabi education reform has progressed, the number and names of monitoring agencies and their contracts have changed.

2.8 Key Performance Indicators (KPI's)

The key performance indicators are set criteria by ADEC that schools have to follow in order to show progress (Appendix B). The KPIs have changed since the beginning of the Abu Dhabi education reform. However, a closer look at some of the KPIs will shed light on the nature of the assessment of this reform.

The following are the five major KPI objectives:

- 1) Quality of learning and student outcomes
- 2) Quality of leadership
- 3) Quality of teaching
- 4) Heritage and culture
- 5) Environment and community

These objectives are subdivided into categories carrying different weighting of importance. For example, student outcomes of English and mathematics have a weighting of 20% each while reference to culture and heritage, which looks at the use of classical Arabic in the school environment, only has a weighting of 0.5%. The KPIs also show measuring criteria and frequency. Overall, there are 41 KPIs that total 100%. The number of KPIs has changed over the years, as has their significance to ADEC. For example, the improved level of English of the teachers had a higher weighting in 2008-2009 at 10% than in 2009-2010 which was down to 2 %. School, teacher, principal and

student performance are all measured by their progress of KPI criteria. Consequently, consulting firms are judged by the number of KPIs delivered successfully, checked by the monitors.

The KPIs are important because they are the driving force of the Abu Dhabi education reform on paper. The main criteria that are of interest to this study are related to the use of the English language, ADEC curriculum understanding, teacher performance and culture and heritage. It is also important to mention that consulting companies are financially rewarded for the amount of KPIs achieved at the end of contracts, which renders the whole process commercially driven. It is possible, that this cost is the key to the phasing out of the consulting firms in the reform process.

2.9 Public School: Al Farfar Preparatory School

Al Farfar Preparatory School (a pseudonym), which is featured in this study, is a PPP school. It is given consultancy support by SIP that aims to improve both teacher and student performance. This school was founded in 1976 and it is managed by the principal and two vice principals. Besides the senior management team, the staff consists of a school supervisor, a secretary, two social workers, a librarian, school coordinators, 34 teachers as well as cleaning staff/workers, a lab technician, a female visiting nurse and the only male employee, a school guard.

Al Farfar School is a middle school catering to students between the ages of 12 to 15, in grades six to nine. It is an all girls' public school with a female student population of approximately 637, mostly from the rural town of Al Masha (a pseudonym) and the vicinity. Al Farfar School is located 30 minutes outside the city of Abu Dhabi, in Al Masha, in the Emirate of Abu Dhabi. It enjoys a good reputation in the area. In the 2007-2008 academic years, Al Farfar School joined the PPP2 schools, under the supervision of ADEC, and is now part of the Abu Dhabi education reform initiative.

2.10 The teachers of Al Farfar

Teachers at Al Farfar are expected to follow the newly placed standards by ADEC. Like most teachers working for the public schools, Al Farfar teachers are registered in the Ministry of Education, and are employed by it. They are also expected to be supportive of the Abu Dhabi education reform programme. In fact, this reform programme

maintains that teachers are, in theory, the most important element of the Abu Dhabi education reform initiative and that its success depends immensely on their beliefs and attitudes as well as their performance.

All teachers at Al Farfar hold an undergraduate degree in the subjects they teach but are not fluent in English. Most teachers were taught in Arabic, though some graduates from UAE University may have had ESL classes in their foundation courses. Importantly, none of the teachers were aware of the fact that they were going to teach in English when they were hired.

Currently, the ratio of Emirati teachers to expatriate teachers is 2.7 to 1. The total number of the Emirati teachers at Al Farfar School is 25 while there are 9 expatriate teachers: 6 Egyptian, 2 Syrian and 1 Jordanian. In September 2009 there were 8 English teachers, 8 mathematics teachers, 3 science teachers, 2 PE teachers, 2 social studies and 2 geography teachers, 4 Arabic teachers, 4 Islamic studies teachers and 1 ICT teacher.

The teachers at Al Farfar are evaluated according to their performance by their principal with input from the consultants. Although teachers in the public school system have shorter teaching days and are paid more than teachers in most private schools, teachers at Al Farfar are busy. For example, the school does not have a substitute teacher system so teachers end up covering for each other especially because the school has a high teacher absenteeism rate. Teachers also have other duties such as playground watch and morning assembly programmes. They also have to attend weekly meetings and professional development (PD) sessions with their subject consultants who also offer linguistic support when they work together on lesson planning and other PD trainings. The PD sessions, about topics such as assessment, learning styles, games and activities, are conducted by the consultants based on teacher needs. In addition, teachers are also supposed to attend three, 45 minutes sessions of ESL classes per week.

It is obvious that teachers have a demanding work schedule but, recently, the work day has been increased. Teachers, in particular Emirati teachers, have been asked to teach 24 hours up from 18 hours, which is almost as much as expatriate teachers who teach 28 hours. Also, their school day has been extended to 2:20 pm.

2.11 Students at Al Farfar

The total student body in Al Farfar is approximately 637 students. There are 151 students in grade 6, 146 in grade 7, 184 in grade 8, and 156 in grade 9 as of the year 2009-2010. The teachers at Al Farfar School cater to mostly Emirati students between the ages of 12 and 15. As of 2010, the school opened its doors to expatriate students for a fee of 8,000 Dirhams per annum. The Emirati students attend for free.

The Emirati students in this school come from rather conservative families. Generally, only basketball is encouraged as a school sport though recently, ADEC has provided Jujitsu Brazilian self-defence classes for girls. There are no after-school activities at Al Farfar. Even if they were available to the female students, parents as well as most teachers do not believe such activities are appropriate for them. The brothers and male cousins of the female students at Al Farfar enjoy a wider range of activities in the boys' middle school.

CHAPTER 3.

THE LITERATURE REVIEW

There is a discrepancy between the perspectives of mathematics and science teachers in the Abu Dhabi education reform programme and the requirements expected of them. These requirements are outlined in the Abu Dhabi education reform regarding issues in educational change and the use of English as a medium of instruction (EMI). This chapter will discuss four interconnected topics: critical theory, educational reform, EMI, and Fullan's theoretical framework. The first section of this chapter will look at critical theory and important criteria relevant to this study. The next section will consider several definitions of educational reform and problems stemming from top-down policies. The third section will look at the subject of English as a medium of instruction and the final section of this chapter will introduce complexity theory and Fullan's (2003) theoretical framework.

3.1 Critical theory

The theoretical position of this paper is critical and this choice is due principally to the fact that the critical paradigm is concerned with exposing oppression and inequality in society with a view to emancipating individuals and groups. The idea that power should not be underestimated or ignored is expressed by Cohen, Manion and Madison (2000) who state that "research and thinking are mediated by power relations...facts and values are inseparable, language is central to perception, certain groups in society exert more power than others, ideological domination is strongest when oppressed groups see their situation as inevitable, natural, or necessary" (p. 153). Critical theory is in essence critical and as Allison (2009) explains, it is "a sharp, subtle, and derogatory account of modern consciousness which undermines much we believe by showing us the influences which have moulded our beliefs." Thus, the underlying purpose of critical theory is to provide an ethical analysis of hidden or distorted social issues and this paper will address issues of power, powerlessness and inequality in an educational arena.

It is crucial that teachers involved in reform understand or at least are aware of how power may manifest itself in education and educational reform through texts, curricula, pedagogy and language. This understanding may not lead to changes in this large-scale Abu Dhabi education reform programme despite the fact that a better understanding of

teachers can support the reform. Nonetheless, raised consciousness hopes, at least to empower the participants and bring to light important critical issues. Pennycook (2001, p. 42) shares a similar view that “emancipatory perspective” is not always realistic and that sometimes one can only problematise a situation rather than seek to empower the participants. Consequently, he suggests the practice of problematising (Pennycook, 2001, p. 41). In his view, “all knowledge is political,” and are ultimately “grounded in an ethical vision” (Pennycook, 2001, p. 43). Therefore, knowledge should be approached critically and problematised in order to seek and achieve awareness rather than empowerment. Hence, this paper’s critical stance above all seeks to show problems that the new Abu Dhabi education reform is creating especially with the teachers in their professional and personal lives.

3.1.1 Critical Applied Linguistics (CALx)

In this particular section, it is noteworthy to mention that there are a number of important schools that are informed by the critical paradigm, of which a leading one is Critical Applied Linguistics (CALx). CALx incorporates critical theory in both its agenda and its practice. This idea is clearly expressed by one of its leading proponents, Pennycook (2001) who maintains that a broad definition of CALx, is “a critical approach to applied linguistics” that “involves a constant scepticism, a constant questioning of the normative assumptions of applied linguistics” (p. 110). CALx deals with linguistics, including second or foreign language teaching, speech therapy and translation, and problematises concepts that are taken for granted in this field, attempting to connect these to issues such as gender, race, class, culture, identity, politics, discourse and ideology, thus making this field politically accountable. Critical theorists, such as Mey, (as cited in Pennycook, 2001) would also maintain that liberal sociolinguists simply fail to recognize “the connection between people’s place in the societal hierarchy, and the linguistic and other kinds of oppression that they are subjected to at different levels.”

Critical Applied Linguistics has a definite political focus and also ties in critical linguistics to language policy. At the heart of CALx is the notion that in being critical and aware of existing ideologies, it is possible to empower teachers and learners so they can generate change. This is important because this study focuses primarily on language and its indirect effects on the government reform programme with the aim to

understand the position of English as a medium of instruction in an Arab/Gulf culture. Nevertheless, there needs to be recognition that such empowerment has constraints. For example, in the UAE teachers face numerous political constraints. The UAE is not a democratic nation. It is a sheikhdom, where the power ultimately lies in the hands of the sheikh and his government; hence freedom of speech per say, is restricted to issues that are non- political in nature.

Language policies in education represent a critical arena in which a society's expectations for the success of its future members are simultaneously expressed, enabled, and constrained. The social values shaping the curriculum, materials, methodologies, and even the language of instruction are implicit, part of the "hidden curriculum" by which schools function. Steinberg and Kincheloe (1998) argue that "school texts consistently leave out issues of social conflict, injustice, and institutional bias" (p. 5). School texts also use language that is neither neutral nor objective. Kincheloe and McLaren (2000) explain how, from a critical perspective, language mirrors "an unstable social practice whose meaning shifts, depending upon the context in which it is used" (p. 310). Thus, CALx helps to inform those working in the field of education to see the ways that politics and ideology interact and determine educational policy. McGroarty (in Tollefson 2002, p. 17) explains that the "day-to-day activities of schools and classrooms" cannot be separated from larger "social, political, economic, and psychological changes" which carry their own momentum. Educational issues whether related to language or not, seem to be influenced by social and political theory.

It is important to recognize the effects of language policy, social and political change and CALx in the Abu Dhabi education reform context. As we have seen in this thesis, educational reform is necessary to gain a competitive edge globally. In order to attain economic success and secure a competitive edge, there is a need for change in education, in other words a need for new pedagogy, new curriculum and English language. Therefore, since critical theory acknowledges the presence of ideology in knowledge and education, the changes in pedagogy, curriculum and language automatically gain political relevance in the national arena. Concurrent to this perspective, one ought to also remember that the *raison d'être* of the expatriate community in the UAE is primarily financial. Unlike expatriates, who are merely residents, Emiratis are taken care of by the government and therefore have relatively

few complaints. Consequently, the nature of people's work conditions becomes less conducive to challenge and questioning.

It is essential to mention CALx because, like other forms of critical research that will be discussed next, it seeks to highlight the fact that language cannot be separated from larger historical, social and political forces and that an understanding of these connections can raise consciousness and liberate those who are subject, even linguistically, to discriminatory power.

3.1.2 Power and critical pedagogy

The purpose of critical pedagogy is to raise awareness towards the manipulation of 'power' in education and empower those involved in it. Michael Apple (1990) strongly argues that education is not "a neutral enterprise" (p. 1). Whether educators are aware of it or not, they are involved in a political power play "by the very nature of the institution" (Apple, 1990, p. 1). In fact, he explains that this hegemony is not just 'economical' but it is also 'cultural and ideological' in nature. Apple (1990) writes that "conscious economic manipulation by those in power is often seen as a determining element" (p. 1) in education. In order to understand practices in education, it is imperative to look at the complete picture, considering the ideological and cultural orientations of education as well as the political and economic orientations. It is necessary, Apple explains (1990) to "complement an economic analysis with ... a cultural and ideological orientation if we are completely to understand the complex ways social, economic, and political tensions and contradictions [that] are 'mediated' in the concrete practices of educators as they go about their business in schools" (p. 2).

It is almost impossible to detach educational policies and practices from other global influences. The impulses of the neoliberals and the neoconservatives can be felt all over the world, cutting across geographical and economic boundaries, as Apple (2010) explains, "policies are borrowed and travel across borders in such a way that ... oppositional forms and practices are marginalized or attacked" (p. 2). In fact such foreign educational reform policies have affected education in Abu Dhabi. Changes that have affected education in the West seem to have found their way into the Emirati education system. For example, since the late 1980s, Giroux and Simon (1989, p. 236) write, "education policies have shifted away from "preparing democratic citizens" and

have moved towards 'elitist' and 'technicist' schooling, serving "a narrowly defined "Western tradition" that is not concerned with issues of "equity, social justice, or the need to educate a critical citizenry." In other words, education policies in the West are striving to produce 'capitalist' citizens. This thesis will later show how some Western/foreign education policies have made their way into the Emirati education system and have dominated the Abu Dhabi education reform.

Domination in education is the reproduction of some form of macro- political, economic or social power that has found its way into the classroom as is the case in the Abu Dhabi education reform. Foucault (1982) explains that "domination is in fact a general structure of power whose ramifications and consequences can sometimes be found descending to the most recalcitrant fibers of society" (p. 795). The problem is, imposed power represents someone else's 'truth' and quite often finds its way into our daily lives in very subtle forms. Foucault (1980) perceives "truth," to be the "construct of the political and economic forces that command the majority of the power within the societal web" (p. 133). He believes that, "'truth' is to be understood as a system of ordered procedures for the production, regulation, distribution, circulation and operation of statements" (Foucault, 1980, p. 133). The problem, as he sees it,

[is] not of emancipating truth from every system of power (which would be a chimera, for truth is already power) but detaching the power of truth from the forms of hegemony, social, economic and cultural, within which it operates at the present time. (Foucault, 1980, p. 133)

Therefore, power is a primary culprit in the critical perspective. It is imposed at all levels of society as a means to deliver a calculated agenda. Under hegemony, the oppressed give power to the dominating oppressor in consent, truly believing that there are no other options or that this kind of hegemony is natural, and the norm. Apple (1990) writes,

Raymond Williams's discussion of hegemony [explains]... how hegemony acts to 'saturate' our very consciousness, so that the educational, economic and social world we see and interact with, and the commonsense interpretations we put on it, becomes the world *tout court*, the only world. (p. 5)

The aim of critical pedagogy is to try and raise the awareness of educators who may be party to this kind of hegemony. Freire's take on hegemony and power describes how domination could lead to marginalizing. Giroux (1985) writes that Freire's "domination is not simply something imposed by the state through agencies such as the police, the army and the courts. Domination is also expressed by the way in which power, technology, and ideology come together, and other concrete cultural forms that function to actively silence people" (p. xix). Paulo Freire, the most prominent critical educator, describes how power can be a tool that can work as much on people as through people (Giroux, 1985, p. xix). On a similar note, Foucault (1982) warns us: "Let us not deceive ourselves; if we speak of the structures or the mechanisms of power, it is only insofar as we suppose that certain persons exercise power over others" (p. 786). As traditional educators, teachers have the power to reproduce hegemony, while as critical pedagogues they can be the agents of change. Critical pedagogy aims to raise consciousness and affect change in education as does this thesis.

3.1.3 Critical Research

Borg and Gall (1983) explain that, "Research, [in general], is our best alternative for progress in education" (p. 34). Research is mostly based on assumptions that are linked to existing literature and it is well organized, validated and results in an outcome that is reflective and accessible to everyone. Educational research also is the careful and systematic documentation and analysis of data that produces knowledge. However, critical research does not simply accept some of these underlying assumptions nor just document and validate results. Critical research attempts to undertake social and cultural criticism. Most critical researchers accept the basic assumptions of Kinchloe and McLaren (as cited in Carspecken, 1996, p. 4):

that all thought is fundamentally mediated by power relations which are socially and historically constituted; that facts can never be isolated from the domain of values or removed from some form of ideological inscription...that language is central to the formation of subjectivity(conscious and unconscious awareness) ; ... and finally, that mainstream research practices are generally, although most often unwittingly, implicated in the reproduction of systems of class, race and gender oppression.

Of course, it is important to query the system one is supposed to reproduce. Guba (as cited in Carspecken, 1996, p. 5), a social constructivist by nature, questions “what values and whose values shall govern.” For him, “the choice of a particular value system tends to empower and enfranchise certain persons while disempowering and disenfranchising others. Inquiry thereby [according to him] becomes a political act” (p. 5). Such a perspective has a different value orientation than, for instance, a person who seeks to affect criticality, whose main target is to affect positive social change. The difference between these opposing positions is well-expressed by Cameron (as cited in Pennycook 2001, p. 53) who states that “Sociolinguists say that how you act depends on who you are; [while] critical theory says who you are (and are taken to be) depends on how you act.”

According to Giroux (2001), critical research should also be dialectic. It should look at education from a historical point of view, how it has been viewed traditionally emphasising the analysis of the subject matter as well as the process of thought. Critical research therefore, should use “dialectical mode of thinking that stresses the historical, relational, and normative dimensions of social inquiry and knowledge” (p. 35). Critical pedagogy too appreciates this dialectic approach to education. It understands that there are no simple answers to questions regarding ‘justice, power and praxis’. As McLaren and Kincheloe (2007) explain “constructed by history and challenged by a wide variety of interest groups, educational practice is an ambiguous phenomenon as it takes place in numerous settings, and can operate under the flag of democracy and justice in oppressive and totalitarian ways” (p. 16). Consequently, inquiries into educational practices and knowledge sources ought to be asked incessantly by various educators at different historical times and in ‘diverse pedagogical locales’.

Thus, critical researchers, as a general rule, should inquire with the aim to liberate the oppressed and to empower the marginalized. Although it is possible, as Carspecken (1996) explains, that a researcher’s orientation and the facts that surface in the progression of research may vary, in fact they are in general, “interlinked but not fused” (p. 6). As in many research studies, this research paper also upholds the fact that awareness and empowerment are key criteria, but the researcher has no control over the facts that emerge or change during the process of research including changes in value differences. This is considered an important distinction because any “good critical research should not be biased.” Critical epistemology, as Carspecken (1996) reiterates,

“does not guarantee the finding of “facts” that match absolutely what one may want to find” (p. 6). Thus, this point of view implies that research findings are not bias free, though critical researchers seek to be.

3.1.4 Critical consciousness-raising

A critical stance seeks to empower and transform a social reality or affect change. In the realm of educational reform, critical theory and critical educational research examine and interrogate relationships between the powerful and the powerless in order to reduce inequality. Socially constructed knowledge in critical theory certainly questions, according to Cohen and associates (2000),

The social construction of knowledge and curricula, who defines worthwhile knowledge, what ideological interests this serves, and how this reproduces inequality in society; how power is produced and reproduced through education; whose interests are served by education and how legitimate these are. (p. 28)

Of course, knowledge serves those who are in positions of power and therefore knowledge can be seen as political in nature and which tends to represent the ideologies of the dominant groups in society. Giroux (as cited in Kincheloe and Steinberg 1998, p. 5) cautions us about the ‘reified view of knowledge’. He reminds us that knowledge is always produced “by humans operating in a particular context with a specific set of values” and therefore it is important to be aware of the “subjective nature of all knowledge and of the need to interpret and deconstruct it in order to appreciate the tacit presuppositions about human beings and the world inscribed within it.” Consequently, Kincheloe, McLaren and Steinberg (2011) explain Freire’s (1970, 1972, 1978, 1985) own perspective about knowledge and power, “we need to ask questions of all knowledge, Freire argue[s], because all data are shaped by the context and by the individuals that produced them. Knowledge, contrary to the pronouncements of many educational leaders, does not transcend culture or history” (p. 614-615).

The ‘emancipatory’ interest in critical theory encourages those faithful to the paradigm to contest knowledge and thus threatens the status quo. Consequently, “what counts as worthwhile knowledge”, Cohen et al. (2000) explain, “is determined by the social and

positional power of the advocates of that knowledge” (p. 2). However, the emancipatory view has its drawbacks. It is very difficult to emancipate people on a large scale. Mey (as cited in Pennycook 2001, p. 37) states there are many “political and economic distortions that our society imposes on us...” and that “different classes have unequal access to societal power.” Moreover, Kincheloe (2008) writes that

Literally, there is no area of Western and increasingly international society that is free from the damage caused by the distorted politics of knowledge. This issue should be on the front burner of our consciousness, a central part of any curriculum, and a subject discussed and debated in the political process. (p. 3)

In other words, Apple (1995) explains, “we need to understand much more thoroughly the connection between education and the ideological, political, and economic spheres of society and how the school partakes in each of them” (p. 7). Unfortunately, the non-democratic nature of government/education in the UAE does not allow for radical questioning. Subsequently, ‘emancipating’ the teachers in the Emirates is a very challenging task, as they have little voice and political capacity to critique decisions made by the government.

While it is impossible to emancipate teachers in the UAE, they can be empowered. This is what this study aims to achieve. Habermas (as cited in Cohen et al., 2000) reflects on critical knowledge and considers it a source of emancipation and freedom; knowledge should neither stop at “prediction and control”, he explains, nor at “understanding and interpreting” (p. 29). Knowledge, in fact, should be taken a step further and be used to guarantee that positive, political, economic change takes place. Unfortunately, in the context of the Abu Dhabi education reform, the real control of knowledge is in the hands of a few local elite leaders and the foreign reform consulting companies. Nevertheless, Carr and Kemis (2002) explain that knowledge which informs actions and constantly reviews it, guided “by a moral disposition to act truly and justly” (p. 33), is what educational research calls Praxis. A rather practical approach to the study of education, Praxis or the act of ‘doing –action’ is once again established emphasizing the ‘practical’.

It is not sufficient to be aware of ideology in education, to reflect and to decide what 'the truth' is. As critical educators, teachers ought to go beyond awareness and recognition and take action. Foucault (1980) explains that,

['Truth'] is to be understood as a system of ordered procedures for the reproduction, regulation, distribution, circulation and operation of statements. 'Truth' is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which induces and which extend it. (p. 133)

Freire (2000) himself advocates action in order to bring about change. He explains the significance of praxis to fight oppression. He (2000) writes,

it is only when the oppressed find the oppressor out and become involved in the organised struggle for their liberation that they begin to believe in themselves. This discovery cannot be purely intellectual but must involve action; nor can it be limited to mere activism, but must include serious reflection: only then will it be praxis. (p. 65)

3.1.5 Empowering teachers

Empowerment is an important factor at the heart of critical research. Thus, its role needs to be considered in the training of teachers in a reform programme in order to engage them in the change and raise their awareness in the process. Consequently, teachers should be allowed to have some form of control on their work in order to influence pedagogical reform in their own way. Teachers and students, Cornett (1991) explains, can only be empowered by their own will and doing, and any other form of empowerment would "instead of reskilling, contribute further to deskilling" (p. 72). It is possible, Kincheloe and Steinberg (2008) explain that, "a democratic and informal but intellectually disciplined classroom can become a venue in which teachers and students create and recreate knowledge," (p. 2) by getting involved in the process of discovery and change.

In order to ensure success, it is necessary to have teachers involved in the reform process, although this may not be as practical or feasible given the size of the reform programme in Abu Dhabi. Nevertheless, it is crucial to engage teacher expertise and

knowledge in educational reform. In fact, Castellano and Datnow (2000) explain that more and more “teachers are becoming recognized as the centrepiece of educational change; [as well as] active and powerful change agents who have the power to make a difference, both individually and collectively.” However, this is only possible when teachers take action and become part of the struggle towards a system that values their experiences, and gives them a voice to participate.

Such empowerment Bolin explains, (1989) “requires investing in teachers' right to participate in the determination of school goals and policies and the right to exercise professional judgment about the content of the curriculum and means of instruction” (p. 82). McLaren and Kincheloe (2007) explain that “the notion of “becoming a teacher” ...concerned with social justice involves far more complex bodies of knowledge and conceptual insights than is sometimes found in teacher education and educational research programs” (p. 16). Teachers need to be aware and involved as “critical agents who actively question and negotiate the relationships between theory and practice, critical analysis and common sense, and learning and social change” (Giroux, 2007, p. 1). Refusing to allow teachers the right to get involved and have ownership of reform, leads to lack of integral knowledge about it, as this research will later illustrate, and leads to major resentment towards the reform project. Involving teachers in the various decisions of reform, on the other hand, encourages the educational change process. Just as research by Joyce and Weil (1996) has shown that learners learn best when they are involved in the planning of their own learning, Fullan (1997) argues, as do others such as Troudi and Alwan (2010), that teachers involved in the decision of school change such as changes in curriculum, are empowered by it. Giroux (2007) writes,

Pedagogy always represents a commitment to the future and it remains the task of educators to make sure that the future points the way to a more socially just world, a world in which the discourse of critique and possibility in conjunction with the values of reason, freedom, and equality function to alter, as part of a broader democratic project, the grounds upon which life is lived. (p. 2)

This is possibly “a project that gives education its most valued purpose and meaning” (Giroux, 2007, p. 2).

3.2 Reform

People cannot be developed. They can only develop themselves. For while it is possible for an outsider to build a man's house an outsider cannot give a man pride and self confidence in himself as a human being. Those things a man has to create in himself by his own actions. He develops himself by what he does; he develops himself by making his own decisions, by increasing his own knowledge and ability, and by his own full participation- as an equal- in the life of the community he lives in...

(President Julius Nyerere, 1968)

3.2.1 Definition of educational reform

Educational reform is an attempt to systematically change either the theoretical or practical aspects of education across a given society. The aim of educational reform, in general, is to develop an effective system of education within schools. However, education in the 21st century has become “knowledge intensive,” highly impacted by globalization. Today's global markets are exceedingly dependent, Carnoy (2000) says, “on information, communication and knowledge” (p. 43). Consequently, educational reform policy makers have changed their focus to emphasize problem solving and critical thinking skills in the classroom as part of reform. To make educational reform critical, we also need to include awareness, democratization and empowerment.

A similar idea was expressed over a century ago by, John Dewey who was a firm believer in democratizing education and a pioneer in educational change which emphasized moral purpose as an integral part of educational reform. For him, curriculum and pedagogy reforms were social developments aiming to democratize society. In other words, as Cohen (1998, p. 427 cited in Fullan 2001, p.10) explains, schools are “counter-cultural agencies that would ‘correct the human and social devastation of industrial capitalism’”. This political perspective is crucial in understanding reform through the lens of critical theory. In fact, such an idea is expressed by critical pedagogy and Freire (2004) who also was, “completely persuaded of the importance, the urgency, of the democratization of the public school, and of the ongoing training of its educators” (p. 4). Thus, critical theory considers that reform must aim to empower those involved in change, to think about education, to reveal discrepancies and implement changes that promote democratic principles. Ideally the

democratic moral purpose of educational reform should promote better educational, societal and economic practices.

Of course, there would be no reason to bring about educational change if school systems functioned effectively. Therefore, educational reform seeks to improve and develop an educational system that has failed to deliver what has been promised and aims to find various ways to improve the system. A common aim in reform programmes is to develop critical thinkers and problem solvers who will eventually become productive citizens. However, there is also a higher purpose to reform and that is to educate a large spectrum of society with no prejudice to their background. John Ralston Saul (2008) states, "we need more than ever to look at the public education system as the primary tool we have to ensure that children are able to grow up to become citizens" (p. 12). This idea is clearly expressed by Fullan (2007), who is a leading author in the area of school reform and whose ideas are central to this thesis. He maintains that a major purpose of reform is to "help produce citizens who can live and work productively in increasingly dynamically complex societies." and this, therefore, puts teachers at the forefront of "innovation and change" (p. 4).

3.2.2 Definitional disagreements

In the past decade or so, restructuring has become 'a fashionable buzzword' in reform programmes but, as Hargreaves explains (1999, p. 241-242), the term has several different meanings. The word itself has come to indicate many things: The US National Governors' Association sees the purpose of educational reform 'to promote higher – order thinking skills...differentiated roles for teachers and broadened systems of accountability'' (Hargreaves, 1999, p. 241). Lieberman and her colleagues (1988) see reform as a means "to create learners' needs for active, experiential, cooperative and culturally connected learning opportunities supportive of individual talents and learning styles...within school organizations ...informed by authentic accountability and guided by shared decision-making"(Hargreaves, 1999, p. 241). Sarason's (1990) take on this problem is in fact dual. He first believes that the various components of reform such as curriculum, pedagogy, assessment have not been addressed properly in relationship to the other changes that take place such as teacher development, leadership changes and school organizations. Secondly, there are also problems of 'power relationships' (Hargreaves, 1999, p. 242) between teachers and administrators; teachers and students

and teachers and parents to name a few. Any restructuring programme should take all these factors into consideration in order to be successful. Unfortunately, because there are different definitions and perceptions of what restructuring means, these efforts to reform are not necessarily clear and when they are implemented on a large scale, often have significant flaws.

3.2.3 Problems in educational reform

There are many problems with the successful implementation of reform and, from a critical perspective, several major problems are evident. The first of these, power, is inherent in reform because reform is usually imposed on schools and these are in most cases top-down changes demanded by ministries of education. This, in turn, has marginalized teachers. The second of these problems is the marginalization of the context which controls the development process. The third of these problems is the fact that changing teacher beliefs presents another problem in implementing reform because in most cases teacher core values are disregarded. This issue is exasperated further by imposing Western models of pedagogy which promote critical thinking and problem solving skills.

Finally, the use of English Language as a medium for instruction in schools is a major issue of reform as are the problems arising from marginalizing the identity and culture of those involved in it. An additional problem with the successful implementation of EMI is, of course, imposing texts and curricula in English which cover all types of discourses.

3.2.4 The problem of top-down power and teacher marginalization

Literature on reform reveals instances of top-down practices and abuse of power that lead to teacher marginalisation. Such practices are usually imposed by government policy makers. Foucault (1984, p.123 in Fairclough, 2003, p. 51) argues that “any system of education is a political way of maintaining or modifying the appropriation of discourses, along with the knowledges and powers which they carry.” Although Foucault’s view is rooted in post-structuralism, the critical perspective highlights the fact that policy makers hold enormous power in the field of education. For example, Elmore (1997) describes an analysis of reform in US history by Tyack and Cuban (1995) who argue that “Most reforms exist mainly in the realm of policy talk-visionary

and authoritative statements about how schools should be different, carried on among experts, policymakers, professional reformers, and policy entrepreneurs, usually involving harsh judgments about students, teachers, and school administrators” (p. 7) hardly affecting practices in schools. Interestingly, the need to consider the teacher is at the heart of Fullan’s model but as evidenced, teachers are rarely given the opportunity to inform, create and develop reform programmes.

Top-down, ‘outside-in’ reform puts little value on the teaching experiences and skills of teachers. Foreign intervention often fails to critically engage the wisdom and expertise of the local people and to find common voices. On the contrary, it tries to legitimize Western or white-Anglo influenced external changes which, in this region, tend to be North American, British or Australian and, as Hargreaves and Fullan (1993) explain, tend to forget that “teachers and their classrooms are variable and changing things-even more so when others intervene in their work” (p. 4). This kind of imposition does not allow for dialogue with the existing teachers and, rather, controls their development and ignores the local micro and macro cultures in schools. However, as Hargreaves and Fullan (1998 in Fullan, 2001, p. 45) argue that, “the ‘out there’ is now in here, in your face. Furthermore, it is an essential aspect of achieving success.” Hence it is an inevitability that needs to be accepted in order to achieve sustainable change.

Various reform projects show the importance of understanding teachers and involving them in all the stages of reform. Welmond, (2002 in Gershberg et al., 2009, p. 196-197) argues that there is a “need to consider the particular role of the teacher in a given society in order to understand the kinds of education reforms that are most likely to work or not work.” Thus, success of a reform programme is closely linked to the local context/culture and to the teachers who operate in it. Gershberg et al. (2009), examining their study of Guatemalan reform, explain that “...failure to adequately consider the particular context and the role of teacher in Guatemalan society appears to have been the root of some of the problems encountered” (p. 197). Therefore, excluding teachers creates marginalization and this is an important factor which impacts on the success of any reform and is one of the principal problems that has been witnessed internationally in the implementation of educational reform programmes. Of course, any process of change is not simple but reform can never succeed without the teachers’ full involvement. Consequently, “there is a growing need to generate policies that

improve the working conditions of teachers as well as dignify their role as public servants,” Giroux and McLaren (1989, p. xxiii) state.

3.2.5 Other problems in Implementation: imposing control over the development process- marginalizing the context

An important aspect relating to the marginalization of teachers is forgetting to focus on the importance and effects of the context in which teachers work. In an effort to encourage ownership, Hargreaves and Fullan (1993), explain that policy makers and those who impose change “overemphasize personal responsibility for change and draw attention away from controversial questions about the context in which teachers work, and the ways in which it enhances or inhibits personal or professional development” (p. 13). The micro and macro contexts where teaching takes place help outsiders understand teacher beliefs and values.

In order to ensure that there is behavioural change, context needs to play a substantial role. Gladwell (2000:29 in Fullan, 2003, p. 27) explains the power of context as ‘an environmental argument’ and writes that “people are a lot more sensitive to their environment than they may seem.” He strongly believes that if we change the context in any situation, than behavioural change will follow automatically. In fact, according to him, context is as important as people’s background and their personalities. Fullan and Hargreaves (1996) explain the importance of the teaching context to change as follows, “we need to know how the teacher’s environment influences the teacher’s teaching. We need an ecological understanding of teaching –of how teaching develops to suit the environment, and in what ways we can and should change that environment if we want to change what goes on there” (p. 32). In fact, sensitivity to context is a crucial criterion in educational reform. Aspects of teaching change as the context varies. For example, different classes require different teaching strategies. Similarly, different activities in the classroom require different levels of energy and may lead to quieter activities when everyone is tired. Classroom size may also be a factor to affect the context of teaching as would be time.

Within the context of school, the relationship of teachers has always had a significant educational meaning. Hargreaves and Fullan (1993) explain that

[teacher] culture carries the community's historically generated and collectively shared solutions ... [and] forms a framework for occupational learning...cultures of teaching help give meaning, support and identity to teachers and their work ... for teaching strategies arise not just from the demands and constraints of the immediate context, but also from cultures of teaching; beliefs, values, habits, and assumed ways of doing things among [themselves]. (p. 217)

Therefore, in order to simplify the process of change in a context where there are fundamental differences such as the Abu Dhabi schools' context, Western pedagogical approaches should be 'substantially' modified, according to Gu, (as cited in Dello-Lacovo 2009, p. 248) "to become compatible with the local teachers' current practices and culturally appropriate for the ...[local] environment."

3.2.6 Other problems in implementation: Changing teacher beliefs and ignoring teacher core values

John Maynard Keynes (as cited in Renzulli 2006, p. 250) once proclaimed that "the real difficulty in changing the course of any enterprise lies not in developing new ideas but in escaping from the old ones." In order to explain this further, Alexander and Dochy (as cited in Freeman & Richards, 1996) explain that core teacher beliefs "have been shown to permeate individuals' perceptions of the world around them" and have hence been shown to guide teacher behaviour and decision making. Therefore, unlike superficial changes in lesson plans, group activities and professional development sessions, a deeper change in beliefs is required for teachers to even consider change in knowledge of curriculum, content matter, language and pedagogy. Such change requires, as Fullan (2001) explains, *reculturing* as opposed to 'restructuring'. In other words, *reculturing* strives to activate and deepen "moral purpose through collaborative work cultures that respect differences" (Fullan, 2004, p. 44). It is important to highlight the different teacher beliefs and attitudes, try to understand them and become critically aware of their possible effects on teacher work if successful reform is to be achieved.

In order to understand teachers, it is important to remember that 'teachers are people, too!' Fullan and Hargreaves (1996) explain that "you cannot understand the teacher or teaching without understanding the person the teacher is (Goodson 1991). And you

cannot change the teacher in fundamental ways, without changing the person the teacher is, either” (p. 25). Thus, this means that sustainable change is inevitably a slow process. Significant changes occur primarily internally and lead to changes in teacher content knowledge, teacher pedagogy, and teacher curriculum knowledge. To affect such change, teachers need to have the means to understand and deal with their internal doubts mostly the result of socio-cultural conflicts. This is an important consideration for a critical investigation of reform in the UAE because the reform requirements have not, at any point, engaged the teachers in the process of reform. Consequently, unearthing and understanding deeply rooted teacher beliefs and teaching experiences would be a step towards teacher development.

In order to illustrate the significance of deeply entrenched values in teachers and their effects on reform, let us consider the 2005 study by Cross City Campaign for Urban School Reform. This was a project that looked at case studies of reform in school systems in Chicago, Milwaukee and Seattle. The study revealed that the reform projects in these cities had all the ‘right’ components in place at the start. They focused on literacy and mathematics, assessment for learning, development of leadership, professional development of teachers, system wide change and strong financial backing. However, according to the reports (as cited in Fullan et al. 2006, p. 3), “the districts were unable to change and improve practice on a large scale” because focus was on standards and coverage rather than in “any deep changes in teaching practice”. These changes in teaching practice are the result of profound changes in beliefs and will not surface unless reform is more sensitive to the needs of teachers.

Regrettably, top down, ‘outside in’ educational reform, in some ways, tends to ignore the teachers and their core values and labels them as ‘creatures’ that need developing. Data collected in this thesis has indicated such behaviour towards teachers’ experiences and needs. Looking at it in Orwellian terms “...no one could be against teachers developing. But there is a critical difference between developing and being developed,” Holmes (1989) writes (cited in Hargreaves and Fullan 1993, p.12). Personal constructs empower individuals and are an important part of interrelations. Freire (2004) supports this idea by arguing that there needs to be greater democratization in reform so that “...even when one must speak to the people, one must convert the “to” to a “with” the people. And this implies respect for the “knowledge of living experience” (p. 19).

Personal constructs, after all, empower individuals and are an important part of interrelations and should therefore be approached with utmost sensitivity and respect.

3.2.7 The problem of imposing Western/foreign pedagogical models

One of the challenges of educational reform is the fact that we all seem “to be engaged in cultural production, producing and enacting an account of what Doherty and Singh call (2005) ‘how the West is done’ pedagogically” (p. 53).

One of the challenges in the politics of pedagogy relates to the micro and macro management of educational institutions. Thus, it is necessary to understand the way in which power circulates on multiple levels, in other words, as Pennycook explains (2001) “the critical views of the world-theories of society, ideology, global capitalism, colonialism, education, and so on-and the world of applied linguistics- classrooms, translations, conversations, interviews, and texts” (p. 130). In criticality, we are looking at the classroom and its social and political ‘ambience’ and realizing that pedagogy in the classroom is very much a reflection of what is going on in the political arena in the outside world and globally. Auerbach (1995) says, “... the classroom functions as a kind of microcosm of the broader social order” (p. 9). We are all, as teachers and educational consultants, influenced by the overall global political and social orientations and whether willingly or unwillingly influence our teaching/consulting accordingly. Consequently, in critical pedagogy the classroom is very much a reflection of what is going on in the political arena in the outside world both on a national and international level. So it is important to consider the macro and micro social political orders, that of society and the classroom respectively in the process of implementing educational reform.

As long as participants are made aware of such political orientations as mentioned above, we create a critical thinking environment within the school system and let the players do their thinking and link that to society outside, on their terms. However, it is important to mention here that the teaching of critical thinking is one subject that can have devastating results. It should be introduced gradually if it is a new concept within the educational system especially one that is considered to be conservative, as Fullan (1994) explains, “You cannot have an educational environment in which change is continuously expected, alongside a conservative system and expect anything but

aggravation” (p. 3). A good example of pedagogical change, that may be difficult for a Westerner to comprehend, would be the shift from rote learning to student-centered teaching. The literature advocates the advantages of student-centred learning including critical thinking. However, in a conservative, highly traditional society such as the Gulf, asking teachers to move away from rote teaching is asking them to move away from deeply engrained beliefs that are based on religion as well as certain social behaviours. Hefnre (2007 in McClure, 2009, p. 337) supports this notion as “given the knowledge of the Qu’ran as synonymous with virtue, it is only logical that memorization and recitation of holy text would lie at the heart of madrasa pedagogy,” which, in turn, lies at the heart of a conservative, Muslim Gulf teaching milieu. Hence, moving away from rote learning is more complex than foreseen by Westerners seeking to impose Western reform models. Nevertheless, because of global political tendencies, more changes can be seen in rather conservative regions of the world, especially in places such as Dubai and Abu Dhabi where there seems to be an economic race to catch up with the rest of the Western world.

3.3 Examples of successful international cases

If we glance at reform implementation in general, we will see that not all reforms are failures. Some programmes have successful aspects and have had positive results. Let us consider some of these partly successful or very successful reform projects which have taken place in Asia, South and Central America, the Middle East and Africa. It is interesting to observe that most of these successful reform projects have started with a moral purpose and a desire to improve citizenship.

The Chinese have long believed in the following motto “Zhongue wei it; xixue wei yong” which, as Pepper (1996, p. 55 in Dello-Lacovo 2009, p. 243) explains, means “Chinese learning for fundamental principles; Western learning for use.” Consequently, it is not surprising that the Chinese have been eager to adopt contemporary Western education models while protecting aspects of their culture. The curriculum reform, ‘sushi jiaoyu’ (quality education), that started in the 1990s is an attempt “to broaden [China’s] educational aims to focus on developing well-rounded individuals rather than only memorization and examination scores” (Dello-Lacovo, 2009, p. 241). This approach of incorporating culture meant that there was a great deal of parental

consensus at its outset and this led to increased success in the implementation of the reform.

Other Asian countries have followed the Chinese approach to incorporate Western learning techniques into their reform policies. Some have adopted these Western approaches willingly such as China, while others, like Pakistan, have adopted Western reform policies due to international political pressure. In the wake of 9/11, the American government, in an attempt to curb terrorism, sent experts from the North Carolina-based Research Triangle Institute to ‘help’ improve Pakistan’s educational policies, curriculum and pedagogy. The US government invested an estimated \$77.7 million into developing educational reform programmes in places such as Afghanistan and Pakistan, as Kronstadt (2004) explained in his CRS Report for Congress, in order to develop “moderate, democratic nation[s]...combating terror and the conditions that breed...” (p. 1). However, this US policy on terror is yet to tackle the religious and political upheavals in these areas.

On the other side of the globe, Latin America underwent major educational reforms that “initiated decentralization and citizen participation” according to Contreras and Simoni (2003, p. 13). For instance, a taskforce in Bolivia, outside of the Ministry of Education, founded the Technical Support Team of the Education Reform (ETARE). This home grown reform body has successfully managed to strengthen Bolivia’s public education according to World Bank Reports (Contreras and Simoni, 2003, p. 13). Another example of a successful World Bank reform programme is El Salvador’s Educacion con Participacion de la Comunidad (EDUCO). The programme “delegate[ed] managerial responsibilities such as hiring and firing and allocation of school level resources to organized community members or Local School Councils (LSCs) in an attempt to strengthen what is called “client power”” (Gershberg et al. 2009, p. 188). Similarly, in the neighbouring country of Guatemala, reform was successfully implemented with the results of the Programa Nacional de Autogestion para el Desarrollo Educativo (PRONADE) of Guatemala, managing to reach “isolated rural communities in the PRONADE school districts [that]were empowered enough to administer and manage their own schools (Valerio & Rojas, 2004, p. 12 in Gershberg et al. 2009, p. 188).

Implementing reform in the Gulf and the rest of the Middle East and Africa has had some successes too. For example, the ruling family of the small country of Qatar, in the

Gulf, approached the Rand Institute in 2001, hoping to revive Qatar's education system that seemed out-dated in an effort to build "a world-class system consistent with other Qatari initiatives for social and political change" (Zellman et al., 2009, p. 5). The initiative aimed to change curriculum and pedagogy in both independent and public schools. The results, of the survey that was carried out between the years 2004 and 2007, indicated that the Rand Institute's reforms were particularly successful in the independent schools though progress was still needed in the public schools.

Similarly, the educational reform programme of Egypt has had successes. When Egypt's then President first came to office, he wanted to avail education to all. With help from USAID, CARE and CIDA, Egypt's President managed to achieve this goal and was in the process of trying to reform the quality of education. At the "World Education Forum on Education for All" he declared, "Education for excellence and excellence for all" pointing to the changes needed in the pedagogy of teaching and the training needed by teachers to achieve child-centred learning. The minister of education, Bahaa El Din (1997, p. 107,119 in Megahed et al., 2010, p. 6) explained the importance of moving away from "a familiar system that emphasized rote memorization and passive learning to a new system that emphasizes active participation, with the learner a significant partner in the process..." In fact, its 1996 educational quality plan, the 'Implementing Egypt's Educational Reform Strategy' reads as follows,

The democratic framework also necessitated that students through all stages of the educational ladder be exposed to different types of learning tools and materials, and taught necessary democratic skills, such as debate, tolerance for other opinions, critical analysis and thinking, and the significance of participating in decision making. Practicing democracy and functioning in democratic systems is therefore one of the priorities for schools and educational institutions. (p. 6)

Egypt's educational reform programme is a good example of a partly successful reform programme. Although it has succeeded in bringing about some changes, winning US support and funds and is moving away from traditional education models, change has not been comprehensive. Evidence, from the USAID report by Megahed, Ginsburg, Abdellah and Zohry (2010), shows a "relatively modest movement on average focused on using active –learning pedagogies" (p. 27). Nevertheless, it has had some success in

small pilot projects, as a result of intensive teacher training programmes supported by foreign and local educational organisations. In the wider scheme of things, it is quite possible that the new pedagogical changes have had some effect on the psyche of the new generation who finally joined forces in an uprising in Tahrir Square, Cairo in 2011 against the country's regime.

Though EMI has not been a significant part of the reform projects mentioned in China, Latin America and Egypt, it does play a substantial role in the Abu Dhabi reform. Therefore, in the next section I will discuss the topic of EMI and its impact on reform.

3.4 The status of English and the use of EMI in the UAE

English has the status of a second language in the United Arab Emirates. It is used in particular for economic, social and academic purposes and globalization also increases its use. Thus, the United Arab Emirates, wants to sustain its economic position in world affairs and this also explains the country's interest in promoting English. In fact, 75% of the workforce is expatriate workers who come from all over the world. Most expatriates socialize in English unless they are speaking their own language in their own community. For example, people speak English to buy and sell, to see their doctor, to talk to the carpenter or any random daily chores. This is another important reason why English is the second language of communication. As a result of the reasons mentioned above, English has now been adopted by the government in educational reform as a medium of instruction.

3.4.1 The reasons behind the use of English as a Medium of Instruction (EMI)

There are two main reasons behind the use of English as a medium of instruction. The first is the influence of US policies in the Gulf region which Phillipson (2009) defines as an example of linguistic imperialism. The second reason is the government's desire to have citizens who are globally competitive. The next section will discuss these two reasons.

3.4.1.1 Reason 1: Linguistic imperialism/neo-imperialism

Considering linguistic imperialism, I will shed some light on why English is imposed as the language of instruction. I acknowledge that not all will agree with my analysis. In

fact very few may look at the spread of English in the UAE as a result of linguistic imperialism. Nevertheless, I base my analysis on notions taken from critical theorists, information gathered from EMI literature and comments from teachers' interviews questioning the legitimacy of EMI in the Abu Dhabi education reform and the purpose it serves. Perhaps it would be more accurate to use the term neo-imperialism as opposed to linguistic imperialism to describe the EMI problem in the UAE.

The roots of linguistic imperialism, according to critical theorists such as Pennycook (2002), and Phillipson (2009) are deeply rooted in the colonial era. Pennycook (2002) explains, "Education was seen as a crucial means for more effective governance of the people, and language policy was one mechanism for effectively providing such education" (p. 29). Thus education served more those who provided it rather than those who were provided. In a similar fashion, the economic, financial and political goals of today's empires are being served effectively through English. Phillipson (2009) writes,

Global English' can be seen as a product (the code, the forms used in a geographically and culturally diverse community of users), as a process (the means by which uses of the language are being expanded, by agents activating the underlying structures, ideologies, and uses), or as a project (the normative goal of English becoming the default language of international communication and the dominant language of international communication in an increasing number of countries worldwide). (p. 106)

Hence, linguistic imperialism continues strongly because of the status of 'global English'. It is important to understand that the 'global' status of English is not just a coincidence but part of an overall plan to 'dominate the world,' adhered mainly by the USA and Britain. According to Phillipson (2009), by the 1990s, the goals of "the neo-liberal project for the New American Century" (p. 107) were already hatched by politicians like Cheney, Wolfowitz, and Rumsfeld. Harper Magazine's D. Armstrong (as cited in Phillipson 2009, p. 107) writes, "the plan is for the United states to rule the world. The overt theme is unilateralism, but it is ultimately a story of domination." And to execute this mission, English has been an important factor. Rothkopf, the director of the Kissinger Institute (as cited in Phillipson 2009, p. 107) states,

It is in the economic and political interest of the United States to ensure that if the world is moving toward a common language it be English; if the world is moving toward common telecommunications, safety, and quality standards, they be American; and that if common values are being developed, they be values with which Americans are comfortable. These are not idle aspirations. English is linking the world.

This mind-set explains the spread of English as a neo-imperialist language in most parts of the world including the UAE. In the context of the Abu Dhabi education reform project, neo-imperialism can be observed at the macro and micro levels of education. At the macro level, neo-imperialism is driven by the Emirati elite who believe in the “legitimacy of [English language] power and the legitimacy of those who wield it” (Thompson, 1991, p. 23 in Phillipson 2009, p. 128), in other words in the symbolic power of English. On the micro level, neo-imperialism is driven by English native speaking teachers and consultants.

The critical analysis helps educational planners consider the impact that English has on a society and culture and at what point English stops being the international, global, business language but starts to overpower other aspects of life that are supposedly carried out in the mother tongue. The legitimacy of “the power of English as a symbolic system” (Phillipson 2009, p. 106) is most likely to be accepted by Emiratis without any critical inquiries or challenges. It is important to be able to defend one’s own choice of language. Tollefson, (1991) believes that defending an L1 is “a commitment to democracy” and that “the use of the mother tongue at work and in school is a fundamental human right”(p. 211) as mentioned in the 1953 UNESCO resolution (Wiley 2002, p. 40).

The fact that UAE educational planners have proposed educational reform promoting English language as a means of instruction is significant. The implied message that English symbolizes modernity and the efforts deployed by the government to promote English dictated by the Abu Dhabi Education Council could send the wrong message to millions of Arab/Emirati teachers and learners. Findlow (2006) wonders “how far the requirement of native Arabic speakers to pursue their higher studies in the English language has been an inevitable response to market needs, and how far a symptom of neo-colonialist power politics in which Arabic is relegated as non-useful and Arab culture as ‘other’?” (p. 21) Similarly, Troudi (2009) insists on critically questioning the

detrimental effect of English on the Arabic language as a language of science and academia. He questions why Arabic should not be used to teach sciences and believes the arguments against its use are ‘weak and unfounded’. It seems that the contributions of the Arab scientists and mathematicians of the Middle Ages such as Al Kindi, Al Jahiz, Ibn Sina and Omar Khayyam have been conveniently forgotten. In fact, Robert Briffault (1919) acknowledged the Muslim/Arab scientists in ‘The Making of Humanity’ by writing, “science is the most momentous contribution of Arab civilization to the modern world...” (cited in Zahoor and Haq, 1997). Troudi (2009) is convinced that underlying these arguments is “... a deliberate attempt by educational policy makers in the Arab world to undermine the role of Arabic as a language of instruction” (p. 6) and that EMI will inevitably lead to the language being “sidelined” and that in time this will mean that the mother tongue of the students “will play a minor educational role” (p.6).

3.4.1.2 Reason 2: Global economic status

Although Findlow (2006) and Troudi (2009) question EMI policy, on the other hand, Hiroaka (as cited in Cummins, 2004, p. 15) argues that an unsuccessful English language policy in Japan has had a disempowering effect on the Japanese because “without a command of English, Japan is being left behind by the rest of the world.” In fact, many believe that in an increasingly global community knowledge of English is crucial and is the passport to “join the world community” (Cummins, 2004, p. 15). Nevertheless, to view the spread of English as only a positive empowering tool is to deny the value of local and regional languages and is a reflection of colonial and Western dominance.

The official position of the UAE on the use of English as a means to economic power is quite clear. An article in *Gulf News* (Salama, 2010) quotes Sheikh Nahyan, the Minister of Higher Education and Scientific Research, who addressed the opening ceremony of a recent conference on ‘Education in the UAE, Current Status and Future’, as saying, “being well-versed in foreign languages is essential for students in keeping with our strong commitment to having high quality curricula and programmes, relevant to the labour market and matching the stature of the UAE in all areas.” According to the Minister, it is not possible to achieve economic success globally or locally without English. In another article in *The National* (Shaheen, 2009), the Minister defended the importance of English language and global knowledge as follows: “we have come to

understand the importance of language learning to our national progress. We are committed to providing our students with the knowledge and skills necessary for living and working in a global environment” (p. 1). Unfortunately, by this discourse, the Sheikh is associating learning English with discourse of growth and development therefore perpetuating the dominant discourse of the powerful in the UAE circles.

There are numerous people who have the same opinion and who believe that teaching English to Emiratis will empower them. For example, Mohsen Al Awadhi, the President of the student council at Dubai Men’s College explained that “without English, I don’t think anything in Dubai would have happened, honestly, we couldn’t understand anything that was going on. We rely on foreigners and expatriates, not just locals or Arab community.” Moreover, he concludes, “If they teach me aviation engineering in Arabic, I would not find any jobs” (Shaheen, 2009). These comments highlight the fact that in the Emirates there seems to be a strong belief that a good knowledge of English means increased opportunities for Emiratis. According to this rationale, Troudi (2009) explains, “having a workforce literate in English is not only seen as a sign of development but is a key to being competitive in the world market” (p. 5).

According to Troudi (2009), the Emiratis have been convinced of this rationale where English is “symbolic of modernity, work, higher education, commerce, economics and science and technology” (p. 5). Some Emiratis, especially the elite of the country, influenced by US policies, globalization and the international knowledge economy, believe that English should be part of the new educational reform programme in order to achieve success. Therefore, as of 2005, the Abu Dhabi education reform implemented the use of English as a medium of instruction in order to teach mathematics and science in schools.

3.4.2 Problems generated by implementing EMI

Although discourse discussed in the previous section may explain the need for EMI from certain peoples’ perspective, it is crucial to be aware of the problems that such discourse generates. Implementing EMI creates primarily three problems. The first of these problems is related to the influence of English on the mother tongue. The second problem is the influence of English on the culture and identity of the Emirati. Finally, the third problem is the presence of societal turmoil and other complexities in language.

3.4.2.1 Problem1: Arabic language as the mother tongue

It is important to mention here that the UAE has major linguistic and cultural concerns with regard to education. There are several issues that have developed as a consequence of the influence of foreign languages and the presence of a foreign entity in all aspects of Emirati lives. Consequently, there has been a huge campaign in the UAE to strengthen the ties of the locals to their country not just to their Emirate. Sheikh Khalifa bin Zayed, the President of the UAE and Ruler of Abu Dhabi, declared 2008 the year of the national identity. In the realm of public education in Abu Dhabi, for example, there is a strong drive to include culture and heritage in every aspect of the Abu Dhabi education reform. In fact, ADEC's mission is to produce "world-class learners who embody a strong sense of culture and heritage and are prepared to meet global challenges." However, there is a paradox in this discourse. English is at the heart of the Abu Dhabi growth and its attempts at reform while Arabic continues to be educationally marginalized.

There seems to be a relentless policy of pushing EMI into schools and universities and teachers are forced to be part of this agenda. Of course, such policy disregards the negative effects of EMI on learners and how such a policy could marginalize the mother tongue. According to Troudi and Jendli (2011) EMI raises questions regarding "the pedagogical hegemony of English and its effect on Arabic as a language of academia." (p. 5). In fact, in their study of the experiences of students studying in English, they (Troudi & Jendli, 2011) explain that there is an overwhelming exposure of English for many students who come from private schools, who are cared for by nannies or who are encouraged by parents who see English as a modern discourse of development and higher achievements. These students buy easily into the 'glorified role of EMI' and its 'neutrality'. These are students who are better versed in English than their mother tongue.

However, it is important to also remember those who are marginalized by EMI policies. A study by Karmani (2010) on the 'Perceptions of the Socialising Effects of EMI on students in Gulf Arab University with reference to the UAE' shows that many students felt that "English was encroaching into Arabic language domains to the extent that many young Arabic speakers are displaying fragmented Arabic language skills, preferring to resort to English" (p. 86). In fact, there was a general feeling that Arab

societies were being subjected to a wide-scale cultural onslaught on a range of fronts of which English-medium education was perceived as one prominent example” (Karmani, 2010, p. 86). Suddenly the role of Arabic was marginalized into a secondary role, a language for literature and religion but not for academia and science. In addition, those who were not on par with the English language were automatically excluded, forced into choosing secondary fields of study. In his work, Karmani (2010) writes, “of resentment at the fact that the institutional separation between English- and Arabic-medium programmes divided the students into the haves and have-nots of the university culture” (p. 84). Despite the fact that students appreciated the significance of the role of English in the business world and technology, they did not think EMI should be imposed in Arab universities. Literature mentions the likes of Markee (2002) and Williams and Cook (2002) (in Troudi and Jendli, 201, p. 13) who question the legitimacy and ethicality of such ‘exclusionary practices’.

Therefore, though it is difficult to ignore the practical aspect of EMI, it is important to be aware of its ‘non-existing neutrality’. Phillipson (2009, p. 338 in Troudi & Jendli, 2011, p. 9) argues that English Language Fellow (ELF) “falsely assume that the language is neutral, free of all cultural ties and serves all equally well.” However, the critical perspective points out that this is not the case which raises legitimate linguistic and cultural concerns. According to *Gulf News.com*, Al Shahin, a member of the Federal National Council (FNC), has expressed concern at the legitimacy of English in the Emirates insisting that, "The UAE's General Education law says Arabic is the language of instruction in schools," (Salama, 2010) and hence a move away renders institutions as breaking the *Law*. In comparable fashion, Mariam Lootah, speaking at the UAE’s First Annual Education Conference, is quoted in *Gulf News.com* (Salama, 2010) as saying “we are a federal country whose topmost concern is boosting the federation ... So the native language Arabic should be given priority as a medium of instruction and not just the language of heritage and culture.” Therefore, the only way to protect the Arabic language is to perhaps introduce a law to shield it from foreign invasion in education. Accordingly, *Gulf News.com* quotes the First Deputy Speaker of the FNC, Al Daheri, insisting that "only a law can protect the Arabic language, its viability and prestige as a language of business, science and scholarly publications and its perceived "purity" in the face of foreign influences" (Salama, 2010).

On a positive note, it is important here to mention that not all students have fully bought into EMI, according to Troudi and Jendli (2011). There are those who see the need for a good knowledge of Arabic and express concern over students' lack of appropriate knowledge of the mother tongue. In fact, according to Bruthieux (2002), market demands may change soon. As the role of EMI overpowers the role of the mother tongue, there will be an oversupply of people who are relatively fluent in the use of English and an undersupply of Arabic speakers in the UAE. As a result, there will be a new market demand for those who could read, write and communicate fluently in the Arabic language. Bruthieux (2002) writes that, "as more speakers acquire a workable command of the [English] language, reduced scarcity may drive down the current premium afforded by possession of that skill and increase demand for alternative languages as markers of economic potential and social achievement (Grin, 2001)" (p. 291).

At present though, EMI is still a significant part of ADEC's reform policies. It is indirectly promoting the culture and values of a foreign language while marginalizing the participants' mother tongue as well as the Arabic/Emirati culture and identity. Findlow (2006) explains this fact by writing that, "deciding on a linguistic medium ... therefore, is a decision not only about availability of materials and staff and demands of the marketplace, but also about which society's values to transmit" (p. 21).

3.4.2.2 Problem 2: Culture and identity

Hofstede (as cited in Pugh, 2007, p. 224) defines culture as a "collective mental programming of the people in an environment. Culture is not a characteristic of individuals; it encompasses a number of people who were conditioned by the same education and life experience." With this definition in mind, it is possible to understand why change and, therefore, reform is difficult in the UAE. The collective mental programming is crystallized and shared by people who have built together various static structures relating to the family, education or religion. The nature of these structures do not lend themselves to change and in fact, are often defended in order to preserve culture which as Hofstede (1980) explains is an area which can represent an ethical dilemma among those who want to democratize and empower. Sing and Doherty (2004, p. 19) refer to Bourdieu (1992) to explain that such people, "are wary of the charge of

doing symbolic violence to ... cultural heritage through curricula and pedagogy that may be construed as neo-colonial or neo-imperial.”

Culture is also very much alive in the realm of education. Reform challenges the cultural beliefs of teachers in schools where they are “...expected to inculcate Western academic habits and dispositions and thus reproduce Western cultural traditions and norms of academic-scholarly conduct” (Sing and Doherty, 2004, p. 19). This scenario particularly applies to Abu Dhabi education reform that is foreign/ Western in nature and which forces teachers to implement the new curriculum and pedagogy in a foreign language. In order to minimize the problems related to culture and identity, the FNC has called for “all educators to protect the ‘national identity’ by pressing the values of Emirati society” (Shaheen, 2009, p. 1).

It is not possible to isolate EMI from socio-cultural and linguistic identity issues in the Abu Dhabi education reform context as they are all, ultimately, intertwined affecting the experiences of the Emirati teacher/student. A neutral perspective of EMI does not draw a true picture of its effects on the culture and identity of the Emirati. In fact, it distorts the picture. Consequently, the warning signs following such concerns in newspapers and critical studies of EMI are legitimate and worth paying attention to. In their study of tertiary students, Troudi and Jendli (2011) reported “major concerns about the constant onslaught of English and its potential disastrous effects on Arabic as a language and a cultural symbol” (p. 15). Critical writers such as Macedo, Dertrimus and Gounari (2003, p. 77 in Troudi & Jendli, 2011, p. 14) warn of the negative influences of language instruction policies on cultural identity, “fractured cultural identities usually leave an indelible psychological scar.” Sadly, the effects of EMI policies can already be seen in the UAE. Arabic is no more considered to be the language of the Emirati culture, though once a strong symbol of culture and heritage. In fact, it seems that, Troudi and Jendli (2011) conclude, “in pursuit of performance, achievement, and employability students’ faces are dehumanized and their voices silenced,” as they lose “the language of their culture” (p. 14).

3.4.2.3 Problem 3: Complexities of societal turmoil

Finally, with the rapid changes in technology and constant societal turmoil, the educational milieu has become a complex, constantly shifting environment. Sirotnik,

(1990, p. 298 as cited in Fullan, 1994, p. 9) acknowledges that the honourable goal of education is and always should be the “commitment to inquiry, knowledge, competence, caring, freedom, well-being and social justice...[and says] the implications of moral commitments to inquiry, knowledge, competence, caring, and social justice go further than curriculum and classroom experiences. They go to the very heart of the moral ecology of the organization itself.” However, the demands of the complex world we live in require that the global society learn continuously and work in diversity, locally and internationally (Fullan, 2001). To this end, Fullan (2003) and others have concluded that, after so many years of studies, reform will only be successful if the thinking mind adapts and larger systems change. In other words, community leaders in, businesses, non-profit organizations and educational organizations, raise their awareness of the ‘context’ they live in, and get closely involved with the individuals in the society they work in.

Therefore, the problems generated from EMI such as the influence of English on Arabic, the risk of losing the mother tongue of the UAE, the threat of the local culture and identity as well as the complexities generating from other societal turmoil require a solution that the next section will try to address. Fullan has quite successfully addressed some of these issues in his research studies and this study will borrow from his complexity theory and his theoretical model to propose a new model that includes all these complexities and tries to find solutions to these problems.

3.5 Theoretical framework

The theoretical framework best suited to understanding the complex nature of educational reform for Abu Dhabi is a combination of two elements. The first is, as described above, a critical applied linguistic understanding to this learning environment which includes factors such as linguistic imperialism and globalization, as well as the tensions that these factors create in this setting. The second element is an adaptation of a model by Fullan (2003) named The New Critical Teacher-Centered Reform Model (see Figure 4 in Chapter Six) which incorporates complexity theory. The two elements need to be combined and will be discussed in more detail later in this section and in Chapter Six.

Fullan's model has been chosen, although later adapted, because it encompasses complexity theory. This theory is appropriate to reform because it maintains that change occurs in unpredictable environments. Fullan's model shows that systemic staticity does not exist but rather that systems are in constant motion and adapt to disorder and handle change as it happens and hence, it is highly applicable to understanding the complex nature of reform. It is also possible to argue that most successful changes occur when reform incorporates such a theory. This idea is aptly expressed by Stacey (1996b, pp.xix-xx as cited in Fullan 2007, p. 115) who states that "...in complex environments, the real management task is that of coping with and even using unpredictability, clashing, counter-cultures, disensus, contention, conflict, and inconsistency." Hence, the natural dynamics of change and reform may be guided but never fully controlled in such a complex environment.

Change in a complex environment such as educational reform, is difficult to comprehend. However, reform can be realized if participants at all levels of the echelon are critically aware of their own realities and are allowed to be directly involved in the proposed changes. This especially holds true when change is introduced by participants at the bottom stratum, as the new theoretical model will illustrate, based on criteria from critical theory. This is well explained by Bryk et al. (1998a, p. 32 cited in Fullan 2001, p. 34) who say that the more staff are involved in reform the better they fare and "are better prepared for the inevitable 'confusion and conflict associated with organizational change..."

3.5.1 Fullan's use of complexity theory and its relevance to this case study

Consequently, the last section of this chapter, will address the complexity phenomenon. It will consider Fullan's (2003) theoretical model outlining the nature of this complexity. Fullan (2003) explains the relevance of complexity theory by showing how it can support educational reform. He states that, "the trick is to learn to become a tad more comfortable with the awful mystery of complex systems, to do fewer things to aggravate what is already a centrifugal problem, resist controlling the uncontrollable, and to learn to use key complexity concepts to design and guide more powerful learning systems"(p. 21). Marion (as cited in Fullan, 2003, p. 21-22) further explains how complexity theory operates:

... order emerges naturally because of unpredictable interaction-
...Correlation is what happens when two or more people exert interactive influence over one another....auto- catalysis ...begins when the behaviour of one system stimulate certain behaviours in another system that in turn stimulates another and another; eventually the chain of stimulation returns to motivate, or catalyze the original system and the cycle is reinforced. Order, then, emerges not because someone or something expends energy to create it; rather order emerges from the natural, and free, consequences of interaction.

Complexity theorists believe that it is possible to make sense of the change process. Marion (as cited in Fullan, 2003, p. 21-22) tries to explain how this is possible by reminding us of the key concepts of complexity theory that contribute to a sustainable and successful change. Fullan (2003, p. 22-23) pushes further the core concepts of complexity theory of non-linearity, correlation, interaction, auto-catalysis, the edge of chaos, social attractors, butterfly effects and a complex adaptive system. He explains that reform does not unfold as intended, but rather surprises happen as a result of 'dynamically complex interactive forces'. He continues to explain that correlation is an important element to move ahead, that auto-catalysis is a result of systems influencing 'each other towards each other' and that the edge of chaos can also be considered the edge of order because there is 'too much or too little order'. Fullan (2003, p. 22) continues explaining that social motivators can 'consolidate gains', that small 'key forces' can lead to major 'disproportionate effects', and lastly that complex systems interact internally and externally with other systems to produce development and 'continuous learning'. Furthermore, he comments that we must not fail to remember that complex interactions "must be continually subjected to the discipline of new ideas and moral purpose" (Fullan, 2003, p. 22). Finally, Heifetz and Linsky, (as cited in Fullan, 2003, p. 23) express the fact that for a sustainable reform to take place, "the majority of people in the system must end up "owning the problem" and be the agents of its solution" thus becoming a stakeholder in its success.

This study borrows from Fullan's (2003) complexity theory and considers factors from CALx that lend themselves to successful reform because, in my opinion, the Abu Dhabi education reformers have failed to create a system where participants are encouraged to become the stakeholders in the change process. On the grass root level, reform policies

have failed to create a set up where teachers influence each other with their newly acquired performance. Consequently, the schools involved in the Abu Dhabi education reform project have also failed to create auto-catalysis, failing to create a system to reinforce a successful pattern of development and learning.

Similar to the school level, the Abu Dhabi education reform policymakers have also failed to address other factors that Fullan (2003) discusses. Firstly, the reform has greatly relied on external models. Although there is great value in various reform models, the object is to change, “the culture of the profession” (Fullan, 2003, p. 55) without changing the culture of the individual participants of reform. Secondly, the reform has been “scaling up too quickly through the energy and commitment of a visionary pacesetter leader at the top” (Fullan, 2003, p. 55) failing to recognise the imminent problems of reform implementation. As a result, this rather quick move by policymakers has neglected “the energy, intrinsic motivation and commitment of everyday teachers” (Fullan, 2003, p. 55) whose input is crucial to the success of Abu Dhabi education reform. Lastly, the Abu Dhabi education reform has failed to recognise that though accountability systems are important, but they are not sufficient for the success of reform. It is important to hold students accountable for their learning, as it is important to hold teachers accountable for their teaching. However, if we do not provide the opportunities for teachers to improve and implement their newly acquired knowledge to their students then we cannot hold the participants accountable for the reform outcomes. Hence, it is important to have a continuously sustainable ‘reform system’ which embraces complexity and is critical in nature.

3.5.2 Applicability of aspects of Fullan’s model to this study’s theoretical framework

The relevance of Fullan’s model primarily is the fact that it shows that educational reform is complex and that complexity theory can help to explain theoretically its multifaceted nature. Fullan’s model shows that one cannot ignore the role of the different participants at the different stages of reform who constitute part of the change process and that they contribute to the process of the reform and hence are intertwined in reform complexity. According to Fullan (2003), the potential of a successful reform depends on the successful personal interrelations within and across the state, district and school levels; in other words, across national and local levels.

For example, there are policy makers at the state or national level who plan reform projects. There are also participants at the district or local/zone level who provide guidance and there are teachers who, at the ground level, implement the changes. All of these people interrelate, and there needs to be reciprocal flexibility if reform is to be successfully implemented. Such flexibility will embrace the unexpected. Obviously teachers play a crucial role in this dynamic because they have to critically assess whether they support the planned reform and believe in the goals that are to be implemented. They must also agree as to whether these changes are needed and if they should attempt to comprehend the meaning of change and the moral purpose of change. However, ultimately, the roles should be shared among educators and policy makers at all levels. In fact, as Fullan (2003) suggests, solutions must ultimately become the moral responsibility of “the public in alliance with governments and educators” (p. 18). With this ownership in mind, the next section will explain Fullan’s theoretical model.

3.5.3 Fullan’s model

Fullan’s (2003) educational reform framework encompasses this notion of complexity, and illustrates that the success rate of educational reform depends on the interrelations and interactions of and across the tri-levels of school, district and state. In fact, Fullan’s framework reminds us that “our complexity theory tells us that the goal is to enable one or more systems (such as schools) to interact with one or more other systems (such as districts) in order to mutually influence their respective capacities to learn and grow.”

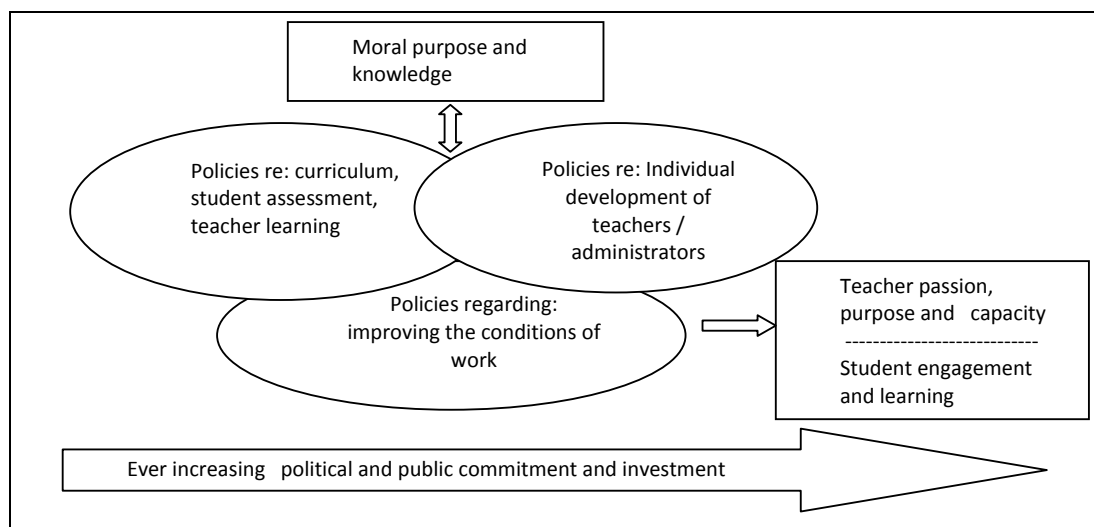


Figure 1 Fullan’s(2003, p. 71) Model of theoretical framework: Three policy sets for educational transformation

As mentioned earlier, educational reform is most likely to succeed when it embraces complexity. Complexity theory emanating from chaos theory highlights the fact that in reform there are variables that cannot be controlled, and that it is easier to work with these variables when they appear rather than try and control them. Moreover, Marion (1999, p. xii in Fullan, 2003, p. 21) reminds us that “complexity theory emerges naturally because of unpredictable interaction...the stimulus that promotes novelty...” Fullan’s model thrives on the unpredictability arising naturally from the interrelations between policies, moral purpose and knowledge, public support and teacher and student engagement.

3.5.4 The attributes of Fullan’s model

Fullan’s model (see Figure 3.1) prescribes a model for successful reform. According to him, successful educational reform results depend on the way new curriculum, student assessment and teacher learning are aligned over a period of time. In other words, these policies are there to ensure that teachers have the proper knowledge to deliver the new curriculum aptly and assess the students appropriately. In addition, Fullan’s model acknowledges the importance of individual teacher/administrator development through incentives, better professional development opportunities and better financial or other types of rewards. It also makes room for policymakers to create “feedback and problem-solving mechanisms throughout implementation”. Furthermore, Fullan’s (2003) model also subscribes to what Fullan himself calls “the hidden killer of educational transformation: the failure of policymakers to address the working conditions of teachers” (p. 75). In other words, it is as crucial to develop the ‘system’ as it is to develop the individual teacher /administrator; that is, it is important to create a working environment that is inviting and encouraging rather than hostile to sustainable improvements.

Fullan’s model has been used in this study because it is relevant to the main areas of this investigation. This model involves policies such as those dictated by ADEC, and which have a huge effect on the teachers. For example, failure to generate an overlap of policies in the Abu Dhabi education reform is the result of an imbalance between policies regarding implementation of certain curricula and pedagogy and lack of proper support in the work environment of teachers. Similarly, the lack of the alignment of the three policies which is most effective in the presence of moral purpose and knowledge,

as suggested by Fullan (2003), has also been problematic in the Abu Dhabi education reform because participants do not necessarily believe in the moral purpose of the local reform. Fullan (2003) defines moral purpose as making a difference in reducing the gap of achievement between the high and low achievers while he defines knowledge as emphasizing the importance of teachers' willingness to be accepting of external knowledge. The results from this study's interviews have repeatedly shown that the Abu Dhabi education reform project has failed to generate both. This is possible because the Abu Dhabi education reform has failed to properly propagate/market the moral purpose and knowledge of the reform which explains why teachers and participants are not as accepting of reform as they should be. As a final step, Fullan insists on the support of the parents and community at large to achieve the required change. The arrows in this model indicate the reciprocal relationships between the various criteria and participants of reform which are crucial to a successful reform but have somehow been marginalized in the implementation of the Abu Dhabi reform.

3.5.5 The weaknesses of Fullan's model

Although Fullan's (2003) model offers a solid platform upon which this paper's theoretical framework can be based upon, it is not critical in essence and does not emphasize the empowering nature of a bottom-up model. It also does not overtly encourage consciousness-raising from all the participants and especially critical teacher reflection, which Chouliarki and Fairclough, (2005) believe is crucial so that "theoretical practitioners should reflect on the social location of their theoretical practice and the consequences that flow from this" (p. 29). In fact, they say that the theoretical framework of critical research "is caught up in networks of relations with economic, political and cultural practices which determine its internal constitution and can have ideological effects within it." Hence, it is necessary to point out the discrepancies in order to democratise Fullan's framework.

In addition, despite being comprehensive, Fullan's model is primarily based on research conducted in North America as well as parts of Europe and does not fully encompass the use of English as a second language in mathematics and science instruction in a Middle Eastern context. Neither does the model include numerous elements of CALx. For example, linguistic imperialism is not even mentioned nor is an understanding of Gulf Arab and Muslim societies. For this reason, Fullan does not deal in detail with the

cultural aspects of reform that can affect teaching and learning. Also, Fullan's framework does not include factors dealing with the disadvantages of teaching in a foreign language when this policy is imposed from the top and propagated by Westerners/foreigners. Finally, though Fullan offers a primarily good model for a successful reform, incorporating complexity at all levels, he fails to place teachers in the driving position. My model (see Figure 6.1), which will be discussed in Chapter 6, incorporates complexity and yet puts teachers in the drivers' seat.

CHAPTER 4.

RESEARCH METHODOLOGY

This chapter explains the process of this research inquiry and assumes a critical perspective to research methodology by adding a political/critical agenda. It is divided into several sections: the theoretical position, the methodology through the use of critical case studies, the methods and their validity, the limitations in the data gathering and finally the ethical considerations of the study.

4.1 The paradigm appropriate to this study

It is important to mention the significance of paradigms and the role they play in the choice of an appropriate methodology and its methods in undertaking research. Guba and Lincoln define a paradigm as follows:

A paradigm may be viewed as a set of basic beliefs (or metaphysics) that deals with ultimates or first principles. It represents a world view that defines, for its holder, the nature of the 'world', the individual's place in it, and the range of possible relationships to that world and its parts, as, for example, cosmologies and theologies do. The beliefs are basic in the sense that they must be accepted simply on faith (however well argued); there is no way to establish their ultimate truthfulness. (as cited in Richards, 2003, p. 33)

The paradigmatic position of any research study expresses an underlying ontological and epistemological position. These theoretical principles are not easily defined but Richard's (2003) definition clearly shows a difference between the two explaining that ontology is "the science or study of being, [that] is concerned with the nature of reality and its stance" (p. 34) while epistemology is "the science or study of knowledge, that refers to the views about the nature of knowledge and the relationship between knower and known" (p. 34-35).

The paradigm that seems most suited in the study of language and educational reform, which is the subject under study in this research, is the

critical paradigm. This paradigm is most appropriate because the reality of a school classroom is profoundly affected by political human-made decisions and because it is known 'to expose power relationships' that permeate social structures as well as bring transformative or emancipatory change. Richards (2003) explains that, "research is part of a wider struggle for a just society free from oppression and inequality" (p. 40).

Therefore, the ontology and epistemology of this paper emerges from a qualitative understanding of the social world as well as the principles of critical theory. Critical theory, hence, perceives the world both as a subject and object existing in a political system. The critical paradigm, does not accept the world as such nor the values derived from efficient, concrete scientific facts but attempts to understand the behaviour related to these facts. It also believes that people should not accept the face value of realities but should question them and should try to politicize the truth in order to democratize it. Thus, the critical paradigm endeavours to empower those who are left behind and those who are ignored and silenced. The critical paradigm therefore aims to transform the social world in order to empower and emancipate the powerless. This research study aims to do the same.

4.1.1 The theoretical position of this study

This research study uses critical theory in order to deal with the controversial topic of educational reform in Abu Dhabi. As a consequence of the Abu Dhabi education reform, the culture and identity of the Emirati teacher has been compromised as has been the Arabic language with the introduction of English as a medium of instruction. Similarly, the voice of the teachers has been ignored because the foreign based and foreign led reform programme has not included them in any part of the decision-making process. In fact, critical theory is very appropriate for my study because as Little (1993) explains,

What is inevitably hidden in the effort to translate research are all the ways in which the research findings conflict, or are limited by design flaws, or reflect particular conceptions of the phenomena under study. What is also missing is an invitation to teachers to act not only as consumers of research

but also as critics and producers of research – to be participants in a more visible and consequential manner. (p. 143)

Therefore, this study aims to raise teachers’ “intellectual, organizational and social” awareness. Similarly, this study’s methodology, which we will consider in the upcoming sections, will incorporate critical consciousness-raising and reflexivity to better inform both researcher and the teacher.

4.1.2 Reflexivity /raised consciousness

In the context to critical research, individual awareness of the researcher is as important as the raised consciousness of the participants. In this respect, Johnson (1997) defines reflexivity as the process “to understand researcher bias... which means that the researcher actively engages in critical self reflection about his or her potential biases and predispositions”. Similarly, Sandelowski & Barroso explain their views on reflexivity:

Reflexivity is a hallmark of excellent qualitative research and it entails the ability and willingness of researchers to acknowledge and take account of the many ways they themselves influence research findings and thus what comes to be accepted as knowledge. Reflexivity implies the ability to reflect inward toward oneself as an inquirer; outward to the cultural, historical, linguistic, political, and other forces that shape everything about inquiry; and, in between researcher and participant to the social interaction they share. (as cited in Ryan, 2005, p. 2)

Thus, in the context of this paper, reflexivity is required both by the researcher as well as the teachers. For example, reflexivity encourages this researcher to realize certain facts. One such fact is that teachers have been asked to deconstruct the way they have been teaching, and reconstruct a new methodology. However, it would be terribly unfair to ask teachers to “deconstruct their own praxis,” as Ironside (as cited in Ryan, 2005, p. 4) explains, when they have hardly had a chance to experience “a way of thinking about or seeing the danger of what is powerful and useful.” Consequently, the role of reflexivity in educational change is very significant. It is a form of “critical introspection [which could lead to] heightened awareness, change, growth and

improvement of self...” (Ryan, 2005, p. 4). Hence, reflexivity in critical paradigm is regarded as an important tool to raise consciousness and empower participants of educational reform at different levels. It is hoped that teachers will be increasingly aware of the problems in the Abu Dhabi reform, better informed and empowered. The study’s research questions aim to raise awareness of these critical issues.

4.2 Research questions

In order to expose the problems in the programme, the study will seek to find answers to three main questions.

- 1) What is the perspective of the mathematics and science teachers in regards to Abu Dhabi education reform?
 - a. To what extent are teachers reluctant to implement reform?
 - b. To what extent are teachers disempowered by their work environment?
- 2) To what extent does Abu Dhabi education reform marginalize teachers?
 - a. To what extent were teachers involved in any of the decision making regarding reform?
 - b. To what extent were teachers disempowered?
 - c. Do teachers see any changes between the old and the new system?
- 3) What is the perspective of mathematics and science teachers with regards to using English as a medium of instruction?
 - a. To what extent are teachers willing to use English as a medium of instruction?
 - b. To what extent does EMI affect the Arabic/Emirati language and culture?
 - c. Are there any factors that may hinder the use of EMI?

4.3 Research design

Although critical theory values specific methodology, in particular action research and ideology critique, which are usually the main processes of inquiry, this research paper will use the case study as a primary methodology. A case study is predominantly considered a method, though in this research study it is also a methodology. In fact, as Soy (1997) insists, the case study is an aspect of methodology than simply a method. Also, the appropriateness of a case study as a methodology is its qualitative nature. Although quantitative research provides data, which can be analysed statistically, it

cannot explore the subjective complexities of the social world we live in. Hence this critical study believes that a qualitative approach is more appropriate and uses qualitative methods to critically explore the study's research questions.

4.4 Case study

The case study methodology deals especially with people and their social world. Cohen et al. (2000) explain that a case study “provides a unique example of real people in real situations, enabling readers to understand ideas more clearly than simply by presenting them with abstract theories or principles” (p. 81). Likewise, Hitchcock and Hughes (as cited in Cohen et al. 2000, p. 181) explain that a case study focuses and tries to comprehend both the individuals and their “perceptions of events” within that given case. Of course, case studies happen in a given context, within a given time frame and are defined by the individuals, their roles and their characteristics in the given group within a case. Bogdan and Biklen (1982, p. 58 in Wellington 2003, p. 38) similarly define a case study as “a detailed examination of one setting, or one single subject, or one single depository of documents, or one particular event.” Stenhouse, (1985, p. 266 in Wellington 2003, p. 40) goes on to show that the relationship between the researcher and the participants in a case study are “a matter of judgment”. This particular point strengthens the case study methodology because it garners “the capacity to interpret situations rapidly and at depth and to revise interpretations in the light of experience.”

Therefore, the case study methodology, according to Yin (2003) is “the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events and when the focus is on a contemporary phenomenon within some real-life context.” (p.1). This is especially appropriate when teachers are being asked to actively and critically participate in a research endeavour, as in this study. In fact, in order to gather data, the case study methodology uses multiple sources that contribute to our knowledge of political, social, individual, group or related phenomena. However, despite the possible complexity of case studies due to the numerous sources of data, the case study methodology, as Soy (1997) acknowledges, has its many advantages in its “applicability to real-life, contemporary, human situations and its public accessibility through written reports. Case study results relate directly to the common reader's everyday experience and facilitate an understanding of complex real-life situations.” In fact, despite some minor problems, it is important to remember the

appeal of case study in what Roizen and Jepson, (as cited in Wellington, 2003, p. 48) wrote, “One important advantage of a study of cases is that the richness of the material facilitates multiple interpretations by allowing the reader to use his own experiences to evaluate the data. The research serves multiple audiences.”

Nevertheless, despite the numerous advantages of case studies because of their limitations, some basic protocols are required. Yin (as cited in Tellis 1997) states that a typical protocol should have an overview of “the objectives, issues and topics being investigated.” It should also include filed procedures such as credentials and access to sites, sources of information.” Another important protocol of case studies includes “specific questions that the investigator must keep in mind during data collection” as well as an “outline, format for the narrative” as a sort of guide report.

4.5 Research methods and data collection procedures

While methodology describes and analyzes the methods used in a written query and aims to help understand the process of an inquiry, methods, according to Cohen and associates (2000) show “the range of approaches used in educational research to gather data which are to be used as a basis for inference and interpretation, for explanation and prediction” (p. 44) as well as empowerment. Methods are procedural and as Richards and Rodgers (1986,) state, “an orderly presentation of... materials”(p. 15). Therefore, methods are techniques used to collect data by various means such as surveys, observations and interviews. In fact, methods refer to the procedures and the process of data collection and in this study, I will be using interviews as my primary source of information while I will be referring to informal observations and documentations as my secondary sources.

4.5.1 Interviews

The principal source of data collection in this study is interviews. According to Punch (2005) an interview is “a very good way of accessing people’s perceptions, meanings, definitions of situations and constructions of reality. It is one of the most powerful ways we have of understanding others” (p. 168). Kvale (2007) also believes that this interaction is important and that “the research interview is an inter-view where knowledge is constructed in the inter-action between the interviewer and the

interviewee,” (p. 1) and he simply comments, “If you want to know how people understand their world and their lives, why not talk with them?” (p. 1)

However, it is also important to realize that interviews depend on people and situations. Silverman (as cited in Punch 2005, p. 176) explains that, “interviews are never simply raw, but are always situated and textual.” The interviews depend as much on the interviewee as on the interviewer because he/she creates the conditions in which the interview takes place. Consequently, interviews become problematic because they are dependent on variables such as people, situations and interactions. In fact, Denzin and Lincoln (as cited in Punch, 2005, p. 176) explain,

The interview is a conversation, the art of asking questions and listening. It is not a neutral tool, for the interviewer creates the reality of the interview situation. In this situation answers are given. Thus the interview produces situated understandings grounded in specific interactional episodes. This method is influenced by the personal characteristics of the interviewer, including race, class, ethnicity and gender.

The interview method was used as part of the data collection technique in this study because it is a functional data collecting tool. Silverman (as cited in Cohen et al., 2000, p. 146) explains this fact by stating that, “interviews in qualitative research are useful for (a) gathering facts; (b) accessing beliefs about facts; (c) identifying feelings and motives; (d) commenting on the standards of actions present or past behavior; [as well as] eliciting reason and explanations.” Therefore, interviews are more than just instruments to collect data. They are a means to interacting with interviewees and establishing rapport and according to Cohen and his associates (2000),

[An] interview is a social, interpersonal encounter, not merely a data collection exercise... [that] follows an unwritten script for interactions, the rules for which only surface when they are transgressed [and as Kvale (1996, p. 125) suggests] the interviewer will need to establish an appropriate atmosphere such that the participant can feel secure to talk freely. (p. 279)

4.5.1.1 Semi-structured interviews

In an effort to provide a comforting atmosphere to the interviewees, I opted for a semi-structured interview method. The semi-structured interview technique is a popular technique in qualitative interviewing, according to Cohen et al. (2000), “where a schedule is prepared but it is sufficiently open-ended to enable the contents to be re-ordered, digressions and expansions made, new avenues to be included and further probing to be undertaken”(p. 146). Though there were certain questions on reform and EMI that were previously prepared, the interviewees discussed other issues. While it is possible to control the reliability of an interview with a highly structured format, an interview in a critical paradigm seems to yield better results when conducted in an open or semi-structured form. So, according to Oppenheim, (1992 in Cohen, 2000, p. 146), a semi structured interview is a good way to validate the contents of an interview because it encourages the interviewees to be informative guaranteeing “honesty, depth of response, richness of response, and commitment of the interviewee”.

In this study, the participants were able to define their own perspective of their ‘school’ world because the nature of the semi-structured interview offered them the flexibility to divert from the main topic and discuss issues that may not have been discussed otherwise. I was astonished at the length of some of these interviews as some teachers spoke freely and continuously. The interviewees were very cooperative and they did not hesitate to express their reservations and concerns regarding the Abu Dhabi education reform and other issues affecting teacher performance. Interviews, in general, allow participants to interpret their version of how they see the world and discuss their own opinions about that world. In this aspect, Cohen et al. (2000) explain, “the interview is not simply concerned with collecting data about life: it is part of life itself, its human embeddedness is inescapable” (p. 267). In other words, semi-structured interviews are neither exclusively subjective nor objective. They are a combination of both.

4.5.1.2 More details on the nature of the interviews conducted

The interviews in this study were conducted semi-formally in the ESL room with three science teachers and eight mathematics teachers. The objective of the interview was explained to the teachers and confidentiality was assured. All the teachers had no objections to be interviewed and were willing to talk to the interviewer individually and

in a group. The interviews were conducted twice with the first sessions in fall 2008 followed by the second sessions in spring 2009.

Although I would have preferred to conduct all of the interviews individually, it was impossible to meet with the mathematics teachers one-on-one. Therefore, while the science interviews were conducted individually, the mathematics interviews were either in pairs or in group interviews. One of the advantages of the group interview is that it is quicker. Also teachers encourage each other to speak out and, therefore, a group interview is a rich data collecting technique. Morgan (as cited in Punch 2005, p. 171) explains that “the hallmark of focus groups is the explicit use of the group interaction to produce data and insights that would be less accessible without the interaction found in a group.” The presence of the teachers in this group situation stimulated conversations that may not have otherwise happened.

However, group interviews are more difficult to conduct. Fontatna and Frey (as cited in Punch, 2005, p. 171) explain that group interviews may have “problems associated with group culture and dynamics, and in achieving balance in the group interaction.” The first group interview with the eight mathematics teachers was difficult to manage. The mathematics teachers were very animated and quite often interrupted each other, sometimes disregarding my attempts to control the situation. My role in the group seemed to be more of a moderator and less of an interviewer. Subsequently, I conducted the next set of interviews in pairs and smaller groups. As much as I would have preferred to interview them individually, it would have been impossible to do so as they are an extremely busy group and difficult to meet on an individual basis.

4.5.1.3 Sampling

Sampling is a means of looking at a segment of a population closely as obviously, it is difficult to research an entire population. Punch (2005), expresses this notion very concisely and realistically “we cannot study everyone everywhere doing everything”(p. 187). In quantitative research sampling, Punch (2005) explains, “the focus tends to be on people sampling” (p. 187) which measures variables and finds probabilities. However, sampling in qualitative research differs from that of quantitative research in its approach and tends to have “some purpose or focus in mind” (p. 187) guided by questions of the study. As a consequence, in qualitative research, deliberate sampling

known as ‘purposive sampling’ is done to find distinct criteria about certain participants.

Purposive sampling has a specific focus. Punch (2005) explains that “sampling strategies vary considerably, and reflect the purpose and questions guiding the study” (p. 187) Therefore, I used purposive sampling in my study because it provides explanations that are realistic and truly represent the teachers’ perspectives. Purposive sampling considers the basic questions of ‘whom’ ‘where’ and ‘how’, linking the sample with the objectives of the research. It simply looks at what I want to ‘accomplish’ and what I want to ‘know’. Purposive sampling does not necessarily wish to generalise but by selecting a group of participants, it is possible to find a representative sample. Palys (2009) writes online, “One well-placed articulate informant will often advance your research far better than any randomly chosen sample of fifty- and the way we sample needs to take that into account.” The purposive sample of this thesis queries the major existence of a gap in reform between the requirements and the performance of teachers, questions teacher attitude and behaviour, and looks at the effects of EMI on the participants. Consequently, the small sample size of eight mathematics and three science teachers that has been selected from a female middle school articulate a relatively consistent and true picture of teachers caught in the midst of educational change in Abu Dhabi. This provides a representative sample of teachers who are a subset of a larger group of Abu Dhabi teachers in educational reform.

Sampling parameters are usually based on the ‘setting, actors, events and processes’ of the research study. In this case, the setting of this study is the middle school of Al Farfar (a pseudonym), as mentioned in section 2.9. It is located within a 30 minute radius from the city of Abu Dhabi, in Al Masha (a pseudonym). The school is housed in a relatively old building, built in the 1970s, with a courtyard in the middle and classes surrounding the yard on two stories. The sample represents a typical group of Emirati teachers working in a rural school. The Emirati teachers come mostly from the surrounding towns of Al Masha with the exception of three who are from Abu Dhabi City, Al Ain and Sharjah cities. Most of the Emirati teachers in this study are graduates of the UAE University, one of the oldest in the country. They studied either mathematics or science in addition to a few courses in teaching methods. They were taught in the medium of Arabic hence know relatively less English than their counterparts from other universities. These teachers studied English as an EFL course, possibly once a day in

primary and secondary public schools. A few teachers have better knowledge of English because they have attended extra language courses. These teachers have, on the average, a teaching experience of 12 years, mostly in the same school as the one mentioned in this thesis. In fact, a few of the teachers are also graduates of the school itself. Hence, they are deeply entrenched in the established education system.

The general principle of purposive sampling is to “think of the person or place or situation that has the largest potential for advancing your understanding and look there” (Palys, 2009). Consequently, I looked at the participants who I believed represented the typical 30 year old Emirati female teacher in a rural school. Although I find choosing such a representative group comforting, Cohen et al. (2000) consider it “deliberately and unashamedly selective and biased” (p. 104).

As a consultant in the school, I had ample access to events and opportunities in the school. I interviewed the participants and observed their behaviour, and followed the process of change from a researcher perspective. The informal, semi-structured interviews were mainly conducted in the ESL classroom, during the class period, as teachers were generally very busy. Teachers were always eager to vent and loved the break from the regular ‘IELTS’ classes, to chat freely and passionately about reform. The teachers were eager to talk and be heard. A few interviews were conducted in the staff room in order to accommodate the teachers who could not come to the ESL room. The process of interviews was always comfortable and friendly. Along with the interviews, I reported the informal, unstructured observations mainly as anecdotes, for they told the stories of the teachers in this school and corroborated some of the comments they made in the interviews. Therefore, with these parameters I could provide a small sample, which I believe to be a representative sample of the Emirati teachers in the reform project of grades six to nine and which can inform others and make the teachers’ voice heard.

4.5.1.4 Interview data analysis

The interview results are summarized in separate categories (Appendix C) that highlight the important points emerging from the teacher interviews. The interviews conducted were tape-recorded and transcribed at the early stages of this study. After studying the interview transcripts, the common questions were consolidated under two principle

headings: Reform and EMI. A sample of the interview questions can be seen in Table 2. The important data emerging from the interview questions were consolidated into two major categories and several sub-categories. Table 3 summarises these categories.

<p>Sample of common interview questions:</p> <p>AA. Reform</p> <ol style="list-style-type: none"> 1 How do you understand educational reform? 2 Do you think there is a need for educational reform in Abu Dhabi? 3 Do you think reform is being imposed on you? 4 Were you in any way involved in the decision making of reform? 5 How does the old system compare to the new one? <p>BB. English as a medium of instruction and related matters</p> <ol style="list-style-type: none"> 1 Do you think it is fair to be teaching mathematics and science in English? 2 To what extent are you willing to use English in the classroom? 3 Do you think Arabic language and Emirati culture will be affected by EMI?
--

Figure 2 Sample of Common Interview questions

<p>Categories and sub-categories of interview questions</p> <p>AA) Reform</p> <ol style="list-style-type: none"> AA.1) Opinions on educational reform AA.2) Top-down AA.3) Marginalizing teaching context/time AA.4) Marginalizing teacher values AA.5) Teacher perspective of the old and the new changes/ pedagogy <p>BB) EMI</p> <ol style="list-style-type: none"> BB.1) English and teacher embarrassment BB.2) English as the medium to teach science and mathematics versus the use of Arabic BB.3) English for future studies and career options BB.4) English in communication and personal advancement.

Figure 3 Categories and Sub categories of interview questions

4.5.1.5 The coding of the interview data

Codes, according to Punch (2005), “are tags, names or labels, and coding is therefore the process of putting tags, names or labels against pieces of the data” (p. 199). Of course the purpose of coding is to assign meaning to these pieces of data, the codes. The two main kinds of codes are known as descriptive and inferential. Both are used in research studies and in this paper, for instance, descriptive coding was used to name the participants and inferential coding was used to label pieces of data gathered from their

interviews. Hence, coding is used, according to Punch (2005), to label and categorize “the volume and complexity of much qualitative data” (199).

Coding is used on two levels: firstly, coding is used to name the participants while ensuring their anonymity while secondly, it is used to tag the information collected from the interviews. Names used as codes are descriptive. In my study, for example, the participants of the interviews were coded by pseudonyms in order to guarantee confidentiality. After all, as Bogden and Biklen (as cited in Cohen et al, 2000, p. 142-143) explain, there is a “need to respect participants as subjects, not simply as research objects to be used and then discarded.” Consequently, the eight mathematics teachers and the three science teachers were named as Asia, Bushra, Clara, Daria, Ebtisam, Falak, Ghalya, Hala, and Jamila, Kalmah, Lamees respectively. Numbers were later added to distinguish between interviews one, two and three. Hence, Asia 1 meant Asia’s first interview while Asia 2 and Asia 3 meant her second and third interviews respectively.

At this stage, I believe it is necessary to clarify two points: 1) Participant Bushra was available for one single interview; hence we have her only once as Bushra1. 2) The coding of number 3 was the result of an attempt to a follow-up interview with teacher Ebtisam, who had been away on maternity leave. Ebtisam, a shy teacher, insisted on having the support of her colleagues during her second interview. Thus, this explains why there was a third interview for Asia 3, Dalia 3, and Falak 3 who gladly participated in Ebtisam’s second interview.

The data from the interviews, on the other hand, were coded inferentially. The data was coded according to the headings and subheadings emerging from the interview questions. The two principle headings of Educational Reform and EMI were coded as AA and BB respectively, while the sub headings were coded as AA1, AA2, AA3, AA4, AA5, AA6 and BB1, BB2, BB3, BB4, BB5, respectively(see table 4.2). It is necessary to briefly explain that coding is not without its criticism (Coffey & Atkinson, 1996, p. 52). By coding the data, we seem to be promoting a ‘culture of fragmentation,’ possibly losing sight of the whole narratives.

4.6 Observations

Informal observations of the mathematics and science teachers carried out by the researcher in this study are another source of data collection. Cohen et al. (2000) describe observational data as “the opportunity to gather ‘live data from live’ situations” (p. 305). In such instances, the researcher understands the context first-hand as he or she is in situ and has ample access to ‘personal knowledge’. According to Morrison (as cited in Cohen et al. 2000, p. 305), observations help researchers gather data on situations regarding the ‘physical setting’ of individuals or groups that are being observed. Observations also provide the researcher with additional information on ‘the human’, ‘the interactional’, and the ‘programme’ settings of the observed, such as teachers’ working environment, teacher dynamic and teachers’ behaviour with each other. The observations also provide information on teacher performance such as use of resources, use of pedagogic styles and application of curriculum.

Observations can be either unstructured or structured. However, qualitative observations, as is the case in this study, tend to be unstructured. Consequently, according to Punch (2005), “whatever the recording technique, the behaviour is observed as the stream of actions and events as they naturally unfold” (p. 179). The researcher moves to the position of the ‘complete observer’ (Cohen et al., 2000, p. 305). In case of an unstructured observation, the data collected is quickly jotted down as notes or possibly kept in diaries which are later transcribed and reconstructed.

As a researcher, I have observed teacher interactions and behaviour, teacher reactions to changes and their interpretations of reform in order to inform my own study. By doing so, I have had an insider’s look into the daily lives of teachers at work. Being physically in the school at all times has also given me the opportunity to socialize with the teachers and even discuss personal matters which gives me additional insight into the teachers’ culture, and individual characters. These documented observations, which are mostly jotted notes in my notebook, will reinforce some of the key issues discussed in this paper.

In many ways, these recorded observations depict the reality at the ‘ground level’. Observing what happens is crucial because, as Pring (2000) explains, “To know what works, requires careful observation, the systematic recording of those observations and the attempt to generalize from them” (p. 33) and of course, learn and empower in the

process. This sort of data does not impose itself on the research; rather it emerges along the process of analysis. However, this same fact becomes a disadvantage “when the closeness introduces biases which may affect the researcher’s objectivity” (Pring, 2000, p. 33).

4.6.1 Documents

A final method of data collection is the documentation of records; in particular, company memos and ADEC letters that disclose data that may help understand the multiple realities of the Abu Dhabi reform. Punch, (2005) supports their use saying that “documents, both historical and contemporary, are a rich source of data for social science” (p. 184). Guba (as cited in Cohen et al. 2000, p. 146) too states that such documentation has its strengths for research, as it is easier to obtain and this form of data collection is ‘unobtrusive’, because there is little interference from the researcher.

This study will use two different types of documentation: formal documents and informal documents. The ranges of formal documents that will be used are mainly ADEC related documents regarding English language, new curriculum and new pedagogy also known as Key Performance Indicators (KPIs), as well as samples of internal memos or emails and/or ADEC letters.

This study will also use sample journals as an informal type of documentation. The reason I call the documentation ‘informal’ is that the diaries were not intended for research; they were assignments for ESL classes that encouraged teacher reflection. However, the contents of the diaries were significant so were used, with the teachers’ consent, as documents supporting the interview data because it was necessary to show the problems existing in the school. Bell (2000) explains that diaries “can provide valuable information about work patterns and activities...” because they “are not [just] records of engagements or personal journals of thoughts and activities, but records or logs of professional activities” (p. 147). In fact, Punch (2005) encourages the “use of all manner of written resources, and of any other materials which will help in documenting either the immediate natural and detailed behaviour of participants (Spindler & Spindler, 1992:74) or the cultural and symbolic context and significance of that behaviour” (p. 185). Consequently, I have used all the means available to me as a researcher. Documents in social research are used in various ways. Some research

studies depend wholly on documents as their primary source of information. However, this study gathers documents alongside interviews and observations in order to enrich the data and possibly triangulate.

4.7 Limitations

Given the scope of this study, there have been a few limitations. From the critical paradigm standpoint, this study looks at reform problems through the perspective of teachers and categorises their word as the ‘truth’. The study acknowledges that the ‘truth’ is subjective and depends on the interpretation of as much the teacher as it does on the interpretation of the researcher. In fact, a qualitative research such as this case study is highly dependent on people and their interpretations hence bias may be inevitable.

4.7.1 Transcribing

One limitation of this study is that the quality of the data may have been compromised in the process of transcribing, transferring from one format to another. For example, in this study interview transcriptions in an oral and interpersonal format were changed into a written language. In this form, the data could become already ‘interpreted’. In fact, Kvale (2007) explains, “transcripts are not copies or representations of some original reality...transcribing involves translation from an oral language, with its own set of rules, to a written language with another set of rules” (p. 98).

In this study, transcribing was also problematic because of the relatively poor quality of the English language of the participants. There were sections in the interviews that were entirely in Arabic and were very difficult to translate and transcribe. There were also many instances where the actual English expressions were very hard to comprehend. It is quite possible that some of these transcriptions may have been misinterpreted or misunderstood by the researcher. Therefore, one has to acknowledge the possibility that conducting the interviews in English was a limitation in itself.

4.7.2 Generalisability

Another limitation of this thesis is the choice of method. Soy (1997) explains that the small number of case studies does not present proper grounds to establish generality. In

fact, Smith (as cited in Cohen et al. 2000, p. 183) explains the weakness of the case study method as “treating peculiarities rather than regularities.”

As each interview reflects the unique perspective of an individual in a unique situation; most interview findings become harder to generalize. In addition, it is almost impossible to interview a huge population of people. As a consequence, according to Pring (2000) case studies may be considered “too small-scale and fragmented to serve policy and professional interests” (p. 39-40). Nevertheless, this case study provided enough data to inform future similar studies.

4.7.3 Sample size

This study is limiting because it only looks at female teachers in one middle school. Perhaps I am unconsciously using ‘feminist’ bias. The feminist orientation of research, which is considered to be one of the most prominent views in the critical paradigm, focuses on marginalized groups, critiquing power structures that trivialize women. Richards (2003) explains that “those working within the critical paradigm seek not merely understanding but change, and research is part of a wide struggle for a just society free from oppression and inequality” (p. 40). The critical paradigm seeks to empower both genders of society, whereas the feminist perspective within this paradigm focuses on empowering the females. I work in an all-female school and I wanted to give the teachers a voice. We cannot deny the fact that most women perceive the world and relate to it differently than men. Gilligan (as cited in Crotty, 2005, p. 174) believes that a woman’s ‘concept of the self’ is different especially regarding moral issues so that most men prefer autonomy and impartiality, whereas most women “...prize caring, nurturing, bonding and the formation of interpersonal community.” These are basic differences in feminist ontology and epistemology where “women *theorise the act of knowing* in a way different from that of men.”

I find the demanding role that this Gulf society imposes on females to be overwhelming while their voices are generally unheard. Stanley and Wise (as cited in Crotty, 2005, p. 161) explain that “We see feminist consciousness as rooted in the concrete, practical and everyday experiences of being, and being treated as *a woman*,” and that is perhaps the reason I have subconsciously insisted on looking at the female teachers’ perceptions of reform. Nevertheless, the fact remains, this study is just a small sample of a much

larger population. In the future, it would be highly beneficial to extend the scope of this study beyond the females of one 'six to nine' middle school perimeter to include other girls' schools at all levels nationally. By doing so, the research study will give a better understanding of the female teachers of reform.

4.8 Trustworthiness and credibility: Triangulation

This study triangulates three different sources. This study uses interviews as a main source of data collection. In addition, it utilises unstructured observations and draws on various formal and informal documents. This paper, "attempts to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint," Cohen et al. (2000) explain.

One of the benefits of triangulation is to have a broader view of the reality. In this paper, triangulation will help validate some of the teacher comments from the interviews. Of course the need to validate data arises because subjects who are interviewed can be biased. It is also possible that the interviewer has certain preconceived notions as Lee (1993) and Scheurich (1995 in Cohen 2000:121) explain, "Studies have also shown that race, religion, gender, sexual orientation, status, social class and age in certain contexts can be potent sources of bias". (p. 112)

Traditionally, reliability and validity are associated with the scientific/quantitative methods of research. These notions should not be dismissed completely in qualitative research as there are still some means in validating a qualitative research study such as data triangulation, peer reviews, reflexivity, extended field work and participant feedback. In the social sciences, Brown and Rodgers (2009) explain triangulation as an "attempt to understand some aspect of human behaviour by studying it from more than one standpoint..." (p. 243). Similarly, to show the significance of triangulation and finding various ways to validate information, Miles and Huberman (1994, p. 235) maintain that "stripped to its basics, triangulation is supposed to support a finding by showing that independent measures of it agree with it or, at least, don't contradict it" (Brown & Rodgers, 2009, 243). This research study uses information from teacher interviews as well as observations and documentations to ensure its trustworthiness and credibility. In other words, this study triangulates in order to validate the data collected.

Researcher neutrality, according to Denscombe (as cited in Cohen et al., 2000, p. 121), is just “a chimera”. Nevertheless, as a researcher, I have tried to stay as objective as possible in collecting and selecting the data from the interviews. The fact that this is possible is an idea expressed by Hargreaves (1999) who explains that “throughout the study, I have attempted to sustain a creative dialogue between different theories and the data, in a quest not to validate any presumed perspective, but simply to understand the problems in their social context, as experienced by teachers” (p. 122). In order to monitor the data, I continuously checked and balanced the information, repeating the interviews twice and sometimes three times and cross referencing them with some of my observations and documents.

The data collected by these qualitative means provided the human information needed to better understand the reform programme from an Emirati teacher’s perspective. However, here, the researcher is assuming that the answers provided by teachers are the truth. Of course, there is always the possibility that the interviewees may not be fully honest about their opinions.

4.9 Ethical considerations

In keeping with the ethical considerations of the study, I paid special attention to respect the dignity of the individual participant. I made sure to clearly explain the aim of the thesis to all participants, to insist on voluntary consent, to reassure complete confidentiality and to ascertain that no harm would come to any participant as a result of this thesis. Of course, in order to show my ethical intent, I obtained an ethical approval certificate from the University of Exeter (Appendix A).

This is how I proceeded with the interviews. I first approached the teachers to obtain their consent as participants in my study. I explained the intent of the thesis; that the aim was to give teachers a voice and promised no harm would come to any of them as a result of their voiced opinions. I explained my interview procedure. Teachers were eager to share their perspectives. At the start of all the interviews, the teachers were reminded that they had the right to withdraw from the study at any time and that pseudonyms would be used to protect their identities. I promised individual respect at all times. Finally, I placed the audiotapes securely in a sealed envelope after the transcription stage.

Finally, I would like to reassure the reader that my wish is to give teachers the opportunity to be heard. My goal has been to help raise the awareness of those who will read this thesis and give a voice to the teachers who were caught off guard by the Abu Dhabi education reform. I believe I conducted this study within the required ethical parameters of the University of Exeter.

CHAPTER 5.

RESULTS AND DISCUSSION

This thesis is a critical investigation into the perspectives of mathematics and science teachers in the Abu Dhabi education reform. Chapter 5 considers to what extent the study has met its main research objectives regarding educational change and the use of EMI. The chapter is divided into four sections. In the first section, the study looks at teachers' perspectives towards reform with respect to their work environment. The second section considers issues of teacher marginalization and the third section deals with concerns relating to EMI. The final section discusses minor additional findings that emerged from this study such as issues related to curriculum and positive aspects of reform.

I will look at the primary and secondary questions of this study in the order in which they appear in Chapter 1, Section 1.3. I will look at each research question and discuss it individually. Relevant excerpts from teacher interviews and notes from teacher observations and journals are included in this analysis.

5.1 Teachers' perceptions regarding the Abu Dhabi reform

An analysis of the data collected from the interviews indicates that all teachers express slightly different views about the nature of educational reform. There were 11 different perceptions expressed by the teachers on what reform actually means to them. Some emphasized the importance of the school environment or the well-being of teachers, while others the relevance of a modern pedagogy. However, all of the teachers associated reform with the increased use of the English language. Despite different perceptions among the teachers about educational reform, the data indicates that most teachers were generally unenthusiastic about reform and resisted change. Asia complained,

[Before] we all like family work together all... now ...there is no time for us to sit together ... before there's more time...we talking about the curriculum, what we do, what we learn (teach) ... now, everything... me/ we have a meeting , ehh, work, we want to finish the homework, we want to finish the weekly plan, we want to teach what we do in this lesson ... now, there's no time for us to do anything!

Studies by Gitlin and Margonis (1995) indicate that teachers have a long history of resisting change and apprehensions about issues of time and authority. They suggest that showing concern and understanding towards teachers' work and finding ways to engage them in the process of change may actually lead to a successful reform whereas ignoring their experiences causes problems. For example, Asia believed teachers were treated unfairly by some foreigners. She complained,

I'm upset... you talk with us ...what you think ... we come from where?!

Problem is, last year when you come, I didn't know if you know what we know, I think you must know what teachers would know and you start from what we don't know ...some of the things you make it , we already know... some things you want from us , like meeting after curriculum ...how we talk to students, not say student 'shut up', not take the student outside...we know all this things, we do it all, ehh, but you talk with us ...what you/they think us ... we come from where?

The data from the interviews indicate that there wasn't a detailed initial inquiry about what teachers did know in order to establish what needed to be developed and what needed to be kept in place.

In their journal article 'The Political Aspect of Reform', Gitlin and Margonis (1995) mention school change researchers such as Havelock (1971, 1973) and Huberman and Miles (1984), who agree that teacher workload, and loss of authority are serious factors that lead to resistance to change. Gitlin and Margonis (1995) also mention other school change researchers such as Fullan (1991, 1993), Hargreaves (1993) Rosenhotz (1989) and Sarason (1971, 1990) who find school culture as a main instigator of teacher resistance. These school change researchers believe that change threatens the "regularities that shape behaviour, beliefs, and role expectations" of teachers (Gitlin & Margonis, 1995). Interestingly, the teachers in this study have indicated similar concerns over the new reform. In her interview, Daria complained,

[Before, we worked] in order...[now],there is no meaning... you know...we have more work now , without order and meaning...education that's what I mean ...there is no meaning in education... it's before better ...

These interview excerpts clearly show that teachers are overwhelmed with their workload, have lost a sense of what they do, have no time and are deeply concerned about the changes in their school culture. Literature on education reform has failed to address these fundamentals of teachers' work.

The study indicates that there is an underlying negativity that expressed itself repeatedly in the interviews. I will discuss these negative perceptions and the teachers' apprehensions about the reform programme which relate specifically to issues of marginalization and the use of English as a medium of instruction. However, other concerns such as the school environment and the new pedagogy, as well as additional problems that emerged from the interviews will also be discussed.

5.1.1 Negative attitudes towards the work environment and about the physical context of the school

Generally speaking, the perspective of the mathematics and science teachers with regards to their work environment is negative. The data collected from this study indicates that some teacher expectations were not met within the first few years of reform. One of these unmet expectations was teachers' perception of the work context. Based on ADEC's educational vision, which promises better working conditions and resources, teachers expected to see positive changes around the school premises as well as in their classrooms and in their staffroom. This point has been addressed by Al Jenaibi (2010) whose UAE-based study showed that "job satisfaction is a measure of how happy workers are with their jobs and work environment" (p. 1) and keeping a worker's morale high would ultimately be beneficial to both employer and employee. In her first interview, Asia mentioned the importance of the school environment. She said,

We need the environment, we need big class we can move in, student can sit in group but there is place for walking, teacher walking...

However, this study has revealed that teachers were dissatisfied with their work environment. Meanwhile, the differing attitudes show that teachers believe there are many basic problems relating to the work environment, especially the general cleanliness and safety of the school as well as other issues. For example, with regards

to attitudes to cleanliness, the teachers feel they are working in unsanitary conditions and that ADEC is not reforming this most basic element of the school environment. Caldwell (as cited in Fullan, 2003, p. 27) believes this should not be underestimated saying that “people are a lot more sensitive to their environment than they may seem.” In her journal, Asia reveals her recurring disappointments at the beginning of every school year (Appendix D). On September 24, 2008, she writes,

Before the school start I put some dream and some activity in my mind. But in the beginning of the year every thing go away. Because a lot of things such as. The school was very very dirty and you can find the sand every where.

Likewise, Ebtisam chose the same words to describe the school. She wrote in her journal (Appendix E),

I don't like this year at the beginning... school was very dirty...”

The data supports the view that the physical shortfalls of the school environment affected not just teacher attitudes towards reform but their morale as well. Teachers were shocked to find a dirty school with some flooded bathrooms and broken windows. They saw little evidence of physical improvement despite all the declarations that were made and with several emails being forwarded to ADEC (Appendix F) about the physical safety of the school and its premises. Several rooms did not meet the standards of the school environment promised by ADEC. For example, some rooms had leaky air conditioners while others were mosquito infested because of broken windows. Observations noted by the researcher indicate that repairs were slow on the school premises and that by September 2009 these problems were still not addressed promptly. There were also other aspects of the physical context of the school that teachers believed needed changing. For example, Dalia wanted better equipped classrooms. She said,

We need ehh, ehh, data show to help us in ehh, ehh to show the subject to children, ok? We need more good materials and resources...

Jamila, on the other hand, wished to have resources that worked properly. She said,

I don't see ... no computer in my classroom, ok, data [projector] more time have problem... how can we use another technologic? We only have project, sometime lights is ok, is not ok..., overhead to see, sometimes not work...

While some teachers wanted new resources, Asia, simply wanted her own permanent classroom where both the teacher and the students could assume ownership.

...ADEC we must give us one projector, one data show... [But] **BEFORE**, the students [need] class for grade...

Besides the obvious teacher grievances about classrooms and resources, some teachers were also unhappy with their own staffroom. For example, Bushra complained about the mathematics staffroom and described it as a café,

yeah, we have desk to sit on, but the truth is , ...we have a café there, there's no ... educational environment, no place ...we used to have this room...it was a much bigger, and we all have our desks... there was room in this room and working and talking... that is, before...

The problems in the physical context of the school were repeatedly mentioned by teachers. They believed that they lacked the appropriate resources as well as the proper environment both to teach and to relax. This made them feel unimportant and of very low status. However, the concerns go deeper than the surface problems of context. This seems symbolic of a lack of commitment from the reform agencies and teachers are affected by this. Khan (2004) in a case study on teacher job satisfaction in Pakistan explains that, “teacher motivation is determined by both pecuniary and non-pecuniary factors...however, overall job satisfaction among teachers is also strongly determined by higher order emotional and social needs” (p. 1) and failure to satisfy these needs affects teachers' morale. In fact, when teachers/coordinators were asked to collate a poster illustrating a 'better' school environment, the resulting posters, as the report reveals, showed that teachers were very conscious of their environment (Appendix G). Also, they sought many things including a mosque, comfortable staffrooms/surroundings, intercoms for easier communication with the main office and access to better food. However, most of these things have not been provided. In addition, these posters

highlight the fact that Western educational reform agencies are not sensitive to and fully aware of the cultural aspects of physical context which Muslim Emirati teachers seek.

Obviously, the more teachers are encouraged to participate in the reform plans and are allowed to realize their own visions of a work context, the more motivated they would be to change or improve their work environment. Fullan (2003) supports this view explaining that “once people realize the change potential of context, and begin to direct their efforts at changing it, the breakthrough can be amazing” (p. 28).

5.2 Teacher perceptions regarding marginalization and disempowerment

The study shows that teachers were marginalized and as a consequence disempowered by the Abu Dhabi education reform. Top down practices were a major part of such disempowerment. Other forms of marginalization included teachers not being involved in the education changes, foreign presence and other demands of teacher roles.

5.2.1 Teacher perceptions regarding imposed Top-Down Reform

Throughout the data there is ample evidence of top-down reform and if we consider the perspective of teachers, one can see that this imposed reform programme is felt to have marginalized and disempowered them. Top-down reform also appears to have affected teacher psyche. One could suspect that this negativity affects their performance in school. The notion of an imposed top-down policy was repeatedly implied in the interviews. The online 2009-2010 first teacher survey provided by ADEC on their official website reconfirms the fact that “teachers have ““none” or “a little” influence over school policy.” According to the official ADEC site, “this result is no surprise” since most decisions “are centrally based in ADEC.” Teachers offered several comments corroborating this top-down practice. Jamila, for example, recounts her encounter with a senior official of ADEC, during a formal initial meeting to introduce the reform project to a select group of teacher representatives from various schools. At this meeting, he explained the situation, answered a few questions but seemed in a rush. Jamila comments,

...he said I don't have time only question 1, 2, 3... go ... bye bye...every time he talk, he like this...I am busy, I am busy... why?

Jamila questions the motives of the senior official of ADEC because she has never been satisfied with his explanations. For example, when Jamila asked him whether initiating a reform programme in the middle schools, when neither the students nor the teachers were ready, was wise; he dismissed her comment as insubordination. Jamila explains,

I told him...when you begin from KG1 that's good but now it's not practical...not like this, straight...that's not right...He said, "...that's not good sentence when you give me like this."

In other words, the senior official did not wish to be criticized; he wanted her to comply and she tried to understand his behaviour saying:

... why?...why?...may be he don't have eh ... answer... Because he don't have answer for each question...he don't give me answer... logical.

This is quite an interesting issue because it touches at the core of the Abu Dhabi education reform problem, which seeks to develop critical thinking and problem solving skills, whereas from the perspective of this reformer, obedience was expected. This chapter will later discuss other cases where critical thinking conflicts with traditional expectations of compliance and obedience. In fact, such top-down management where compliance is expected has been frequently mentioned in the teacher interviews. Kalmah recalls,

... one person from ADEC, he visit the school, some teachers they are meeting with him, he say you have to change....the teachers they told him we need to prepare...he say "no time for prepare, we cannot prepare...you have to change! If you want to work, you have to change!"

From the teachers' perspectives, there was little forewarning about the Abu Dhabi education reform. There was only one phone call by an ADEC coordinator, prior to June, 2007 saying that the school will be visited by 30 assessors to see whether it is suitable for the PPP project. However, no written information about this visit was forwarded to teachers. Another phone call followed to inform the school that it had been

chosen. Consequently, the consultants were brought into the school. When asked, Clara² felt that,

[The] actual schools were not made ready for the project.

The notion of leadership forcing and imposing educational change is expressed in the literature repeatedly. In fact, Micklethwait and Wooldridge (as cited in Fullan, 2001, p. 54) are quoted as follows: “The state is an incredibly blunt instrument; it gets hold of one overarching idea and imposes it without any sensitivity to local context ... [as a result of] the desperate craving of politicians for a magical solution.” Abu Dhabi education reform is such a project where a large scale educational change is implemented from the top by the leaders of the country in order to expedite the development of the Emirate’s ‘human capital’. Top- down education systems that follow authoritative models have proven to be inefficient though. Such systems only “foster distrust and suspicion between teachers and the management” according to the Thai Education Reform Project document. On the other hand, several studies by USAID and Rand Agencies, in South America, Middle East and Asia have shown that leaders who advocate and support new programmes succeed in implementing change.

Sustainable change is more realistic when teachers are given the time to absorb the idea of change, to detach their emotions from changes and then rebuild or reinvent a new value system that adopts change. In their study, Davies and Ellison (2003) explain that “change managers have to allow others to make sense of the change in exactly the same way as they had to...” (p. 99) because teachers need to go through seven stages in order to internalize change. If leaders fail to recognize this need, then they automatically fail to empower teachers. It is in the process of re-contextualizing change that teachers reconstruct their own values and embrace reform. Through her own research, Little (1993) explains that change is undermined “when local and state leaders attempt to reduce conceptual and practical complexities in the interest of a fast-paced implementation” (p. 140). Such leaders dismiss the complexities rising from teacher realities. As observed by most of the teachers in this study, the top-down nature of reform has alienated them, as they were not properly prepared for the changes at hand. For example, Ghalya could not understand the demands of the reformers. She said,

Do this, do that...why? why not before tell what want? Why change?

While Ghalya was one of many teachers who questioned the top-down nature of reform, Dalia expressed her demise,

No, no, no, they come and here new curriculum, come and take this ...
another method, takes this, learn [teach] like this...

It was obvious that there was a high level of frustration. Asia was furious at this intrusion from the top uttered,

Always ... do this, do that...why not explain?

In order to change the attitudes of teachers towards reform, teachers need to first trust the system. Giddens (as cited in Hargreaves 1999, p. 252) defines trust as, “confidence in the reliability of a person or system, regarding a given set of outcomes or events, where that confidence expresses a faith in the probity or love of another, or in the correctness of abstract principle.” Thus, for teachers to trust the reform, they must be included in its shaping so that they can personally ‘invest’ in it. It is difficult to ‘invest’ in something when one is not familiar with what it is.

Such a management style shows disrespect to the teachers and reinforces a top-down approach. Winter (1995) in his article titled ‘Hindrances to Educational reform’ comments on the hierarchical administrative structures of ‘educrats’, consultants to superintendents, who though well-meaning, still use ‘antiquated, top-down’ decision making processes in order to implement educational policies. This top-down management practice is generally seen in reform literature as obstructing the progress of reform. Teachers, who have participated in a reform programme reluctantly, tend only to generate superficial changes because they have not had sufficient time to process these changes internally nor enthusiastically support them. Such adjustments need to happen slowly so that the teacher within the educational system is ‘recultured’ successfully. Goodlad (1992) is even more critical believing that “top-down, politically driven education reform movements are addressed primarily to restructuring” and that this focus may “... have little to say about educating” (p. 238).

5.2.2 Marginalization and teacher perceptions of ‘not feeling involved in the reform process’

Though teacher engagement is crucial in the implementation of a successful reform, the interview results indicate that teachers were never consulted in designing/planning the reform. In fact, the data collected from the teachers’ perspectives reveal there were few signs pointing to reform. Kalmah said,

... they make a meeting one day on the evening , some teacher they go there, but ehh...it is only about ‘this is what will happen !’ nothing about thinking or something ... no!

Moreover, she later explained why, in her opinion, this approach was not effective.

I want to tell you something...the big mistake in this thing that, the teachers are not prepared enough for this development or improvement,...the year before this was start, one of the partnership ...I think... ehh...I don’t know what’s her name...she come, came for us, she make a ... meeting... she talk about reform only but nobody ask us about ...ehh... nothing.

Clara recounts how the Ministry started asking teachers to improve their computer and English skills with no further explanations. She assumed that it was an attempt to improve their skills because they were weak. She said,

Before reform, they called us, asked us to improve ourselves in English and in using computers ... so even if they didn’t get the companies or change it immediate, they know that we are weak in English and computer...

5.2.3 Teacher resistance to change

It is important to realize that teachers, who have not been part of the reform, will not implement change. On the contrary, they will resent the idea of reform and will fight it every step of the way. For example, during a mathematics meeting, teachers were asked to include new tasks to the portfolio, one teacher yelled,

I am not changing anything. You want change; you go back to your own country!

On a similar note, when the science teachers were asked to change the science continuous assessment format required by ADEC, a teacher blurted out,

I will not! You are all outsiders; you do not belong in our schools!

In fact, quite recently, when the teachers heard that the consultant contracts may be renewed for a fifth year, some became vocally rude,

We don't want you... enough... can't wait you leave so we go back...

In retrospect, it is quite possible that ADEC anticipated such reactions and simply eliminated teacher involvement in an attempt to guarantee a 'swift and successful reform'. Despite teacher reaction to ADEC requirements or reform requirements, it is interesting to see how teachers were not or at least did not seem to be consciously aware of the demands of their leaders. When the teacher in the latter anecdote was reminded that it was the Emirati government who recruited the 'outsiders', she looked around incredulously and ignored the comment. She was in complete denial. In fact, she was not emotionally ready to accept that fact about her country's leaders.

In order to change attitudes towards reform, the policy makers need to realize, the significance of the role teachers play in reform. It is crucial to remember the significance of the role that teachers play in the classroom. The teacher is there to help motivate and disseminate information and help the students take control of their own learning. Hence, the teachers' role is extremely important and therefore should not be dismissed. In fact, they should be engaged in reform. Troudi (2009) writes, "If teachers are given choices and asked for their views on various educational issues they will cooperate while marginalizing will only alienate them further" (p. 66). Therefore, it is imperative to involve teachers in reform so that they take ownership of the changes and feel empowered.

5.2.4 Teacher perceptions regarding a foreign presence: "I feel paralyzed..."

Foreign presence in the country is perceived by teachers to be another example of marginalization. The Rand (Gonzalez, Karoly, Constant, Salem & Goldman, 2008,

p.119) research findings that show the analyses of the human resource development challenges in some Middle Eastern countries including the UAE, state that “despite rapid development and commercialization in the UAE, the Emirati population remains predominantly religiously conservative and close knit, and thus the large foreign presence, across all skill types, has introduced significant social stresses.” From a critical perspective, one can only begin to understand the extent to which the teachers are threatened by the ‘foreign’ element and the imposed changes. This is an obvious fact because of the increased number of foreign educators in the recent years that have joined the reform project. ADEC alone has recruited thousands of foreign teachers and many foreign consultants to assist in the implementation of reform. Hence, in the psyche of the teachers, reform meant ‘foreign’ change. The educational changes implemented were taken from foreign pedagogies; the curriculum was Western and the books were in English. The only non-foreign element in the reform programme was the ‘culture and heritage’ requirement, which itself seemed to be under threat with so much outside influence in the current educational reform.

Jamila complained about the presence of foreign educators in the country and tried to explain this fact questioning the mind-set of her people and her government. In her second interview, Jamila stated,

...always they think when we bring different person from different country, it will be better... Why? More student, boy and girl finish college...they don't have job... it is a pity, really ... We have more student ok specialty English, or teacher English ...why don't they bring this?

Similarly Asia was also cynical about the government's deep urge to use foreign expertise. She explained,

...I think, that ADEC they think anything from outside from America, Europe is better...what I am believe and what I am sure ...this is our country, we know what we... how I can teach, we are Arabic, we can teach our student . I can teach ... I know what she know my student, so I can learn her this way.

It is difficult to ignore the overwhelming increase in the number of foreign teachers/consultants in the public education system in recent years and the wave of problems this increase has caused. Jamila and Asia's comments are repeating recent views expressed in local newspapers since the implementation of the reform. An article in *The National* titled 'Emirati graduates give up on teaching' by Bardsley (2010) highlighted this point. According to the article, graduates from the local colleges complained that "they are being squeezed out by schools that prefer to hire native English speakers... referring to ADEC's hiring of 456 native English teachers from Australia, Canada, Britain and the US last August." It almost seems that this issue of hiring foreigners is actually against the reform that ADEC is trying so hard to implement. One of the major aims of the Abu Dhabi education reform is to prepare future generations of Emiratis who will take over the country's work responsibilities including teaching into their own hands, yet ADEC seems to be contradicting its own policies hiring a foreign workforce. The Associate Academic Dean for Education at the Higher Colleges of Technology agrees. He believes that hiring Westerners as part of the Abu Dhabi education reform project will eventually harm the new graduates. "Some of our best and brightest and most committed teachers end up sitting at home, or lured away to other government jobs or the private sector," *The National* (2010, February 19) quotes him saying, "we are in danger of losing a generation of teachers." Nevertheless, it seems to me that ADEC has gone forward with its policy of hiring foreigners simply to expedite the reform process. However, as mentioned earlier in this chapter, Little (1993, p. 140) warns against 'fast-paced reform implementation' for it may compromise the change itself by ignoring the complexities. Most teachers agreed that there was a constant dependence on the part of the government or the leaders of this country on 'foreign expertise'.

Many teachers find this dependency on foreigners threatening and are intimidated and feel disempowered by their presence. For example, Ghalya expressed anxiety at the presence of foreign consultants in her classroom. She knew she was an excellent teacher but could not help feel disempowered in class by them.

Anybody, if miss N. come or miss C , I feel ...eh... I feel ...I feel paralyzed... when you come my class, I ... I want to teach but I feel...eh...I cannot speak... I cannot... eh...when you come, not me in the class ...

when you out, sorry, when you out, I explain very strong for my student with English...

Similar feelings of disempowerment and frustration have been reported in several Gulf studies, though mostly at tertiary level. Karmani (2010), for example, reports of high levels of frustration when English is imposed in tertiary classes. He writes, “there was a general sense of pent-up frustration – and at times resentment – at having to study in what they appeared to describe as an alien medium of instruction” (Karmani, 2010, p. 83). This is very similar to how most teachers feel because they are forced to teach in a medium that is foreign and uncomfortable to them. The sheer presence of a foreigner in class expecting to hear English as a medium of instruction seems to be a source of stress and anxiety, as Ghalya’s comment indicates. Karmani (2010) also writes of students who could not truly comprehend the existence of EMI in Arab universities. He writes that while students “appreciated the importance of English as a language of business, science and technology, they did not feel this was sufficient justification for instituting English –medium education at Arab universities” (Karmani, 2010, p. 85). Of course the same holds true in the case of the Abu Dhabi education reform. As the study has indicated, teachers have repeatedly questioned the presence of foreigners in the country and their role in the Abu Dhabi education reform. Many teachers are not convinced that EMI is the right route to take and research backs this perspective. Troudi and Jendli (2011) write, “There are, up to now, no empirical studies in the Gulf region which prove that graduates of mother tongue educational programmes are outperformed by those who underwent an EMI model” (p. 14).

5.2.5 Additional demands on teachers’ role

There were also further causes for teacher marginalization. The interview data indicates that teachers felt disempowered because of the additional demands imposed on them by ADEC. In her studies on the ‘New Math’ reform, Sarason (as cited in Gitlin & Margolis, 1995, p. 379) wrote, that teachers “... were being asked to learn procedures, vocabulary, and concepts that were not only new but likely to conflict with highly over learned attitudes and ways of thinking.” Another study by Bielenberg (cited in Troudi & Jendli, 2011, p. 4) too, explains that in order to realize EMI in science and mathematics classes, teachers were using “a number of pedagogical and linguistic devices to help their students understand the content. In other words, they were using ‘special English’

that was “slow speed and a focus on selected vocabulary.” This is, of course, quite challenging for both teachers and students who have to tackle “linguistic structures in academic textbooks and the ‘normal’ academic language of a content area classroom (p. 109).”

The teachers in this study, who were accustomed to a less demanding work load, were annoyed by the changes that the new reform programme imposed. Ghalya complained in her second interview,

... When you come the first year everything change, we make weekly plan, worksheet, see where give the lesson, another book, everything the teacher make... more work!

Similarly, Ebtisam lamented in her second interview over the loss of the old ways of teaching and the shorter working days she cherished. She said,

School is longer now, we finish 2:20...we work longer!

Obviously, the demands of the new Abu Dhabi educational changes were stressful on several levels. Firstly, teachers were being asked to change their work patterns, a routine they were used to and seemed to be satisfied with. Burns (1995 cited in Troudi & Alwan 2010, p. 110) reveals that “requiring teachers to replace their developed practices with ones they are not familiar with” affects their identity and is psychologically daunting. The Abu Dhabi education reform programme was demanding for more rigid work standards and teachers were neither ready nor willing to change. Secondly, teachers were asked to use a new curriculum and pedagogy that were unknown to them. They, in fact, had little control over these changes and considered them limiting rather than empowering. Fullan and Hargreaves (1996) explain that such intimidation is common in reform as “feelings of powerlessness which contribute to teachers’ lowered sense of efficacy, are often brought about in systems where they have little control over what is taught...for them...detailed guidelines are not frameworks of opportunity but prisons of constraints” (p. 35). From the teachers’ perspective, the newly imposed workload was too demanding, hence, simply dis-empowering. Asia agreed,

Now I think ... we are more stress ... there is no time for any work in my home ...my children, someone sick!

The teachers also complained repeatedly that there was no time to attend to their families. Jamila, in her second interview commented that teachers,

...have children, husband...what can we do ... leave family for 'reform'?
In Islamic, the family is important, the first one than job...

In an article titled 'Call for early retirement for women' Shaheen (2011) from *The National*, quotes Al Muazzin, the chairman of the health, labour and social affairs committee who says, "women complained that they spent too much time at work and not enough time with their families." This is relevant to an Emirati teaching context where the role of women is primarily focused on family, not career. Traditionally, teaching has been considered the most 'appropriate' career choice for women. In addition, the UAE is a young country and most of its citizens are the beneficiaries of the oil discovered in the 1960s; hence, teaching is not necessarily driven by financial needs. Consequently, school has become a venue to socialize, share personal burdens and reassure one another. Yet, the requirements of reform infringes on teacher time to socialize at school, as their home life is relatively protected and a lot of the teachers do not have time to meet people outside its perimeters or are not allowed to. As a result, teachers regard themselves constrained by the new reform work demands.

5.2.6 Differences between local cultural demands and the reform programme

Another possible cause for teacher marginalization is the difference in traditional teacher core values and the proposed changes. One such difference is related to the compliant role of the women in the Arab society. The 2010 Global Gender Gap Report released at the World Economic Forum ranked the UAE at 103 among the 134 countries surveyed that analyzed differences between female and male participants in the domains of health and education as well as economics and politics. This low result is supported by Rubeiz (2010, November) who writes in the *Daily Star*,

For several centuries Arabs have been living too comfortably in a patriarchal society,...for too long men have exploited tradition, dictated the law, and even interpreted scripture in such a way as to preserve the

dominant status... despite progress... the life of too many girls in the Arab world is regimented during childhood by authoritarian fathers and teachers, and then on by husbands, and always by political rulers.

In my informal observations I have noted many instances where teacher anecdotes, expressed in my observation journal, highlight the power of the male members of the traditional Arab/Emirati family. I have noted that most female teachers in this school shoulder the responsibilities of their family with little support from their husbands. For example, when the ESL consultant asked for teacher email addresses so she could send them assignments, Hala explained that she was not allowed to have access to internet; a decision taken by her husband, hence did not have an internet connection at home.

Another example that illustrates the power men hold over the female members of their families relates in particular to unmarried women travelling alone. There was an announcement in the newspaper about a government sponsored trip to Europe. When the ESL consultant suggested to Jamila that this was a grand opportunity to learn English and continue her education, Jamila said,

I have to talk to my father.

However, in a household of four adult brothers and three adult sisters, a mother as well as a few maids, Jamila at 35 could not leave to study abroad. She came back with the following answer,

How I can leave my father? He need me...no, no I cannot go!

The educational reformers have underestimated the cultural barriers women have to confront in Emirati society. Sarason (as cited in Gitlin & Margonis 1995, p. 390) explains that teachers at work are driven by “the power of faith, tradition, and habit” not by “rational thought” which clarifies why some deeply centered teacher values are difficult to change. Females in this Gulf country have a responsibility towards their husbands and families that precede other obligations. For example, the traditional role of women and children in some families does not allow for the questioning of a male figures’ or an elder’s knowledge or authority. Gonzalez et al. (2008) write in The Rand Corporation monograph series titled ‘Facing Human Capital Challenges of the 21st

Century Education and Labor Market Initiation in Lebanon, Oman, Qatar, and the United Arab Emirates,

The greatest barriers to participation of Emirati females in the workforce remain social and cultural factors. These can include social and family obligations that prevent workforce participation, the refusal of male family members to grant females permission to seek work, and perceived social and cultural factors that discourage females from joining the workforce. (p. 111)

This controversy between reform and cultural or traditional values also involves issues related to critical thinking and problem solving skills that are largely promoted in the new Abu Dhabi education reform programme and which will be discussed further under the topic of pedagogy. However, it is important to mention here some of the obstacles that hinder such thinking. The Abu Dhabi education reform programme is promoting critical thinking and problem solving skills while the traditional role of women in this society promotes compliance and obedience. The controversy between teacher core values and reform demands raises questions regarding the suitability of this reform to the Emirati context. Though teachers did not comment directly on this particular subject, their behaviour noted in my journal suggests otherwise. Critical thinking is a skill that requires the constant questioning of the status quo and refusing to take things at face value. In other words, critical thinking requires deeper inquiry into why and how things are done and applying such thinking is an additional burden for a teacher. In addition, this is a skill that Emiratis, in general, were never taught. The lack of critical thinking skills among the Emirati graduates has also been reported in The Rand (Gonzalez et al., 2008, p. 112) report which researched the education and labour market initiatives in the UAE.

Therefore, promoting critical thinking may lead females to question their traditional roles in a patriarchal society. Critical thinking may also lead to inquiry about social/religious issues. The following example illustrates how rapid education change can lead to social problems. One of the science teachers assigned a research project on 'human evolution' to her eighth graders. A female student, who came across Darwin's theory of evolution while surfing the internet, was intrigued with her findings. She approached her father for further explanation. The father was infuriated at the possibility of a non-traditional interpretation of evolution and immediately complained

to the Ministry of Education. The consulting firm and the school administration were notified and warned. As a result both the company and the school were worried about the possible negative repercussions of this complaint. Fortunately for all involved, things did not blow out of proportion and the matter was put to rest.

This anecdote illustrates the mind-set of some of the conservative members of the Emirati society and may explain why teachers are reluctant to implement core changes. Massialas and Jarrar's (1991 as cited in Mazawi, 1999, p. 336) explain that patriarchy and even oligarchy runs throughout the entire political, social and educational systems where "the values of the patriarchal family are replicated in the school." They say that "the Arab values of the classroom teach reverence to authority figures and complete submission to their will; it teaches not to question traditional sources of knowledge and wisdom; and it teaches cooperation, not competition" (p. 336). Such traditional notions render change quite challenging. Here, however, it is important to mention that Arab countries are not all similar; in fact, many differ in their educational systems despite some similarities. For example, a country like Tunisia has had critical thinking as the norm since the early 1960s as has Lebanon. Nevertheless, some of the Gulf countries are relatively more conservative and are strongly bound by patriarchal societies. Therefore, even if reform seems to promote critical thinking, the UAE's social set up may not allow an easy transition. Thus, propagating changes in the mind-set of teachers to encourage critical thinking and problem solving skills in a relatively conformist milieu as the UAE becomes challenging yet necessary in order to raise awareness especially among the female teachers.

5.2.7 Different perspectives regarding changes between the old and the new education systems

Obviously there was a need for reform. Graduates were not well-prepared for today's knowledge-based economy. The country's officials in both the government and private sector suggested, Gonzalez et al. (2008) report in the Rand-Qatar study, that there was an "insufficient number of Emirati graduates of secondary school and university [who] possess[ed] the skills needed to meet the growing demands of the country" (p. 119). Consequently, the leaders decided to initiate new educational reforms. However, despite the need for change, many teachers did not or could not accept this fact.

According to the data, teachers strongly believed that they performed exceptionally well prior to the reform initiative. Ebtisam commented,

The work, the project , the activity, the teacher achievement ehh the math achievement, ehh the math club more before... before we had math Olympics, now we don't do that...before we were better...

A constant “we were better before” appears repeatedly in the interviews, implying that according to most teachers, the system worked better before the reform initiative. In fact, when I asked Ebtisam, “how do you see reform in a few years’ time?” She shrugged her shoulders, smiled cynically and proudly said,

Maybe over... After 20 years maybe they willyou will reach to our level before [what you were?], yes ...

In other words, she meant that they were doing much better before the start of reform and that it would take the system another 20 years to get back to the pre-reform ‘achievements’. The notion that they were performing better before the initiation of reform was a common perception. In her first interview Asia said,

Before we use more computers...before we have a room up with data show...we take student up and explain to them, and now, there's no time for us to do anything

There was a great deal of confusion as a result of the changes and teachers expressed their disappointments. Bushra commented,

It is quite disappointing for us...when you talk about developing teaching here, when we start our year with this curriculum, with a lot of gaps, a lot of mistakes, it's quite disappointing for us.. [before] we know what student taking...and we know if we teach this one the student is supposed to know it ...but now we just ...we don't know what they tell us...

Ghalya too, was confused and disappointed. She concluded,

Before ... we knew what we were doing!

The data also indicates that most teachers do not perceive a difference between the old Ministry education system and the new pedagogy of reform. The new pedagogy promotes critical thinking and problem solving skills. It encourages a move away from rote to a student centered learning method. However, it appears that most teachers in this study have not completely transitioned to the new pedagogy or are unaware of the differences between the old and the new. In her first interview Asia said,

For me, I teaching the same way...

In fact, not only was Asia not altering her pedagogical approach she believed that the previous MOE pedagogy was better;

Before we are better than now...we divide the class into groups... we make brochure... Before we work, project, anybody can come can see what we do what we make... Now I think just photo and picture, something like that not... there is nothing ...nothing for thinking, for improving...nothing.

In fact, Asia describes the important elements of a learner-centered approach to teaching where projects and group work are the focus. When Asia was asked to clarify her comment, contrary to what reform policy makers have maintained, she explains that the old Ministry pedagogy encouraged the use of projects, the use of computers and a great deal of thinking. In her opinion, the new pedagogy is not as effective. Most of the other teachers held similar views. Kalma said,

There's nothing especially that I can see that is change or happen big change ... curriculum, textbooks, teaching...you don't see any differences there...

Cuban's (1993) model of *situationally constrained choice* tries to clarify the reasons for teacher resistance based on long years of studies of US-based educational reform. Fang and Mark (2004) articulate his thoughts as follows:

Deeply held cultural beliefs about the nature of knowledge and about how teaching should occur and students should learn –all reinforced by

educational systems that reward traditional forms of instruction- militate against radical reform in teaching and learning. As a result, when teachers do implement innovations, they tend to do so at the margins of instruction, leaving core relationships and processes in place. (315).

The interview data includes many statements such as ‘we were better before’ and ‘everything the same’. There may be some validity to these comments as the old education system did produce some prominent citizens that have served the country well. This idea is reiterated by Maryam Lootah, an outspoken advocate of local teachers, on the Emirates Center for Strategic Studies and Research (ECSSR) website. She explains that many prominent educators and achievers today in the UAE are “the output of the existing educational system” which could not have been that negative because it has produced people who have “worked and excelled in the Arab world and beyond” (ECSSR, 2010). Therefore, one solution, proposed by Little (1993) is that reform needs to create opportunities to “invent local solutions-to discover and develop practices that embody central values and principles, rather than to implement, adopt, or demonstrate practices thought to be universally effective” (p. 133). Interestingly Lootah, confirms this thought explaining that foreign produced pedagogy has not been successful, so “it’s time the UAE sought to find solutions locally”.

5.3 Teacher perceptions regarding English as a medium of instruction (EMI)

The third major aim of this study looks at teacher perceptions regarding EMI. The study provides many examples of teacher perspectives related to teaching mathematics and science in English. It reveals instances where teachers were willing to use English in the classroom. It discusses the role of Arabic in the Abu Dhabi education reform as opposed to EMI. Finally, the study provides examples of factors that hinder the use of English in the classroom. In this study, I have not discussed the actual teaching of mathematics and science subjects because my focus has been EMI and how teachers are coping without Arabic in such classes. In the following section, I will look at some of the obstacles that have stood in the way of EMI.

5.3.1 The extent to which teachers are willing to use English as a medium of instruction (EMI)

The results from the interviews indicate that the topic of EMI was a major teacher concern. There is a consensus among all teachers that knowledge of English in the twenty-first century is crucial. Teachers agree that English is a global language, almost a necessity to survive in an industrial and technologically advanced world. They also acknowledge the fact that English has become the lingua franca of the UAE, “the language which is used habitually by people whose mother tongues are different in order to facilitate communication” (UNESCO 1953, p. 46). However, teachers have mixed feeling towards EMI: some believed it is necessary to provide students better opportunities while others are concerned about its effects on the Emirati culture.

In the process of globalization, knowledge and skills have become substantially important for the growth of the world economy. As a result, educational reform has become a major tool to achieve such goals with English as a significant part of these economic aims. Many parents, for example, who are dissatisfied with the education of their children, have started fleeing public school systems in order to find better opportunities in English medium private schools. Bushra, explains this fact:

Before you bring English in ... government school, all the parents who want better education for their children bring, take them to the private school, they will have ... study Math and science in English, because they want to prepare them for university ... for their career...

The Abu Dhabi educational reform is a consequence of the problems resulting from the old education system. The old system has proven to be ineffective in today's knowledge economy. De Boer and Turner (2007) write about the young nationals of the GCC countries who “face a future of underemployment or no employment at all; [because] the educational system has failed to prepare them for the rigors of working in the private sector” (p. 111). In fact, the traditional Arab education, Rugh (2002) explains, has failed to provide “appropriate skills to deal with the challenge of globalization” (p. 397). In an effort to address this problem in the GCC countries, Sakr (2008) writes that countries like Qatar, the United Arab Emirates, Bahrain, Kuwait, and Saudi Arabia are competing to revamp their public education system in order to provide better opportunities for their youth. For example, Qatar, boasts both its 2002 “Education for a New Era” as well as its

“Independent Schools” initiative. Similarly, The United Arab Emirates is proud of its 1999 “Vision 2020” which in addition includes programmes such as the “Partnership Schools,” “Schools of Tomorrow,” and “Model Schools”. In Bahrain, there are the “Schools of the Future” established in 2004, as well as the “National Project to Develop Education.” Kuwait, on the other hand, adopted the “Education Development Strategy 2005-2025,” in 2003 and other initiatives may follow. Finally, Saudi Arabia, has announced the “King Abdullah Project for Education Development” that was established in mid-2007.

Central to these changes has been the use of English as a medium of instruction in mathematics and science replacing the Arabic language. The data in this study reveals views that applaud the use of English in the sciences as it is perceived as ‘modern’ and ‘language of science’ while Arabic is denied such status. For example, Clara 1 said,

I am very happy ... for our scientific subject ... for science and maths and English...because they will need it ...Other course they can have ... social studies in Arabic ... and religion still in Arabic, but for science and Maths it's perfect, it will be perfect.

Some teachers also believe that English would not affect the students’ Arabic language. When I asked Kalmah whether she thought students may forget their Arabic, she asserted,

No, no because...I think if there is subject in Arabic and subject in English, I think it will not be a problem for Arabic, because they study Arabic, Islamic , geography, history those four subject they can study in Arabic, I think it's not a problem...

It is quite amazing to see how teachers, who have been victimized, have bought into this kind of thinking and are quite convinced by it. Troudi (2007) tries to explain the Emirati perspective where, “having a workforce literate in English is not only seen as a sign of development but is a key to being competitive in the world market” (p.6). In an effort to expedite the process of change, the Abu Dhabi Education Council has recruited hundreds of English native speaking teachers who have taught more than 38,000 students in 2009-2010 scholastic years. This is a serious intrusion and should not be

taken lightly. In fact, Sakr, (2008) in *Arab Reform Bulletin*, warns that in the GCC countries such as Qatar and the UAE, “Foreign experts have a noticeable presence, as do global consulting companies.” Of course, such a huge foreign presence in education can only be the result of mutually shared foreign and local interests. I believe that the presence of English in the Arab education system is a conscious decision taken at the highest level of government and is based on political and economic agendas serving the interests of both the ‘West’ and the local elite.

5.3.2 The political/economical aspect of EMI

Though some may refer to the changes in educational policy as neutral and necessary, it is not possible to ignore global economic and political influences. Critical writers such as Pennycook (1994), Phillipson (2009), Skutnabb-Kangas (1995) and Tollefson (1991) agree that, “language policies favouring the spread of English are intimately connected with unequal social, political, and economic relationships between nations and institutions,” writes Tollefson (2001, p. 16). He explains that, “given the impact of policies favouring English, it is clear that the spread of English is not a ‘natural’ or ‘accidental’ process but rather the result of a billion dollar effort by government and other agents worldwide” (Tollefson, 2001, p. 15). Naturally, there are numerous changes that eventually occur alongside language change such as subtle changes in local cultural value systems. These are hidden realities that critical research aims to help raise in order to increase awareness.

Al Kitbi (2006) from the United Arab Emirates University (UAEU), discloses the real goal of educational reform in the Gulf in her Carnegie endowment article. In her article she acknowledges education to be the foundation of “cultural, social and political consciousness.” She continues to explain the political agenda attached to the introduction of English in higher education in the Gulf. Although the article refers to the university students, it does echo the concerns of many teachers. Al Kitbi (2006) writes,

The increasing reliance on English is an example of the sort of proposed changes in educational systems that serve foreign interests more than they serve the societies of the Gulf. The insistence of foreign powers to a change in the educational philosophy in the Arab Gulf region comes within the context of the control and suppression of university youth so that their world

view in the future will be compatible with and serve the interests of those powers. It is known that when the interactive relationship between the social and political contexts and the universities is strengthened, internal and external change results—as is made clear by the effective role of students in many Arab and international experiences. Altering the role of higher education neutralizes university students and prevents them from being an effective force for change. (p. 2).

In the context of Abu Dhabi education reform, very few teachers seem to be aware of the political agendas of EMI. In fact, it is quite difficult to find candid data from the interviewees that relate EMI to politics, possibly for two reasons. The first reason is simply because, in my opinion, most teachers are not critically aware of the underlying implications of a ‘foreign’ reform and the consequences of EMI on their language and culture. It is the aim of this study to raise the awareness of the teachers towards such agendas.

The second reason is that any political link to the EMI component of the Abu Dhabi education reform programme would have serious repercussions on the welfare of the teachers. The UAE is not a democratic country by nature, hence people are very careful not to be critical of the governing body and their political decisions. In fact, dismissing this unwritten law is unheard of. However, due to the recent political changes in the Middle Eastern political arena, some Emirati professors at the New York University, Abu Dhabi campus have become relatively outspoken regarding certain economic and political reform. As a result, their actions have been dubbed as ‘insulting the Royal family’ and the professors in question have been ‘reprimanded’. In fact, an article on April 23, 2011 in *The National* confirms these measures. I did encounter a somewhat similar scenario during my interviews when Asia was commenting on the use of English in the classroom as opposed to Arabic. She said,

In this environment, now, they put the English first, for...jobs, in the jobs we want...I don’t agree with that...we Arabic country!

It was interesting how another teacher suddenly jumped and turned off the tape recorder warning her friend about political consequences. In fact, the teacher being interviewed was on the verge of incriminating people in high places but chose to be quiet when

warned. There is an unwritten rule in the UAE that forbids criticizing the leaders of the country and most residing here respect that law.

5.3.3 Marginalizing the Arabic language/the mother tongue

One of the primary aims of the Abu Dhabi education reform is to promote the use of English in mathematics and science classes. Sakr, (2008) comments that the “educational reforms in Gulf Cooperation Council (GCC) states are often attributed to U.S. pressure, as many in Washington believe that curricula in these countries have encouraged extremism and terrorism.” Unfortunately, this political perspective of EMI has somehow pushed English to a primary position in the GCC countries especially in the UAE, leaving the mother tongue in a vulnerable position.

The new education system, which relies heavily on Western/foreign models, distances the Muslim student from the balance that the Arab education system has always aspired to achieve. According to Hussa Lootah, an educator interviewed on the ECSSR website on October 10, 2010, “there is a need to go back to the Islamic cultural thought in education as a comprehensive view of the universe and science.” She believes that the Arab and Muslim scholars of the past had the right formula where a “comprehensive, contemplating and balanced view of the world”, a notion that is coming back under “inter-educational system,” generated well rounded, well-educated human beings. The existing education system has managed to produce educators who have excelled in various fields within the Arab world; therefore, it could not have been as negative as it has been painted to be.

According to Maryam Lootah, the problems of education in the UAE are a direct result of a change in the question ‘why do we learn?’ In her interview on the ECSSR website on October, 10, 2010, Maryam Lootah expressed her dismay at the present education system that has marginalized the Arabic language and has imposed English and foreign values on learners. She believes that education in the UAE has shifted its focus from creating ‘well rounded citizens’ to ‘fulfilling the requirements of the market’. According to her, “the objective of education is to develop the human being and this cannot be achieved by denying the right to learn in one’s mother tongue. This abandons the Arabic teacher model and prevents students’ normal interaction with the educational process due to the language barrier” (ECSSR, 2010). The Arabic model has not been a failure.

On the contrary, it has managed to generate thousands of graduates who have achieved success in society.

Therefore, the assumption that, a ‘foreign’ system is better and could work when imported and applied to the local education structure, is a faulty one. According to Tucker (2009) it is important to study foreign educational systems and investigate the reasons why they work, but the context is as important and when systems are taken out of their cultural context they simply do not work. In fact, when we copy we only become second best and never the best.

5.3.4 The role of Arabic in the Abu Dhabi education reform as opposed to EMI

In an effort to promote the use of EMI, Arabic has taken a secondary role. Teacher interviews indicate that many teachers believe EMI is a practical move. For example, many teachers agree that teaching mathematics and science in English is useful. Kalmah, for example, expresses the importance of English to the students and says,

It’s better for them because now all the university in English, they need to learn English, not like us, when we joined the university in the beginning we have problem because the English language...

Clara too had a similar opinion. She too believed that students who wanted to further their education would be better off studying English in the schools. She said,

In college it’s in English, so if they started from this early age or early stage, it’s better for them because we continue in English after all it’s very good to have started English from now...because in the end, if they want higher studies and if they are working in medicine faculties or engineering, or computer ...all these subjects now are by English...

However, from a critical perspective, if the sciences are taught in English as per ADEC strategic plan, then the role of Arabic becomes secondary. A critical study by Troudi (2007), on the use of Arabic as a medium of instruction, reveals a relatively weaker role for Arabic in the UAE/Gulf, a role defined as “the language of literature, theology, social and emotional communication and daily conversation” (p. 6). Similarly, a survey

conducted by Findlow (2006) reports Arabic as the language of tradition, home, religion, culture, school, arts and social sciences. English on the other hand, is symbolic of modernity, work, higher education, commerce, economics and science and technology. These divergent types of associations depict Arabic as a symbol of local and traditional Arab Muslim culture and English as a vehicle of modern, international and Western frameworks.

This perspective is very unfortunate because Arabic has more to offer. Even Yazigy (1994) explains, in a study by Vogt and Oliver (1998) on Kuwait University students, that 98% of the students felt that learning English was “superior to Arabic in many ways, using descriptors such as perfect, logical, useful, practical, simple, dynamic, and valuable [while] ... Arabic was seen as superior in terms of its purity, religious value, and overall expressiveness” (p.3-4). It seems to me that in an effort to catch up with the rest of the world, the GCC countries including the UAE have forgotten the legacy that Arab scientists and academics have contributed to the rest of the world. As mentioned in the literature review, Arab academics such as Al Kindi and Al Jahiz, have given immeasurably to the world of science and mathematics. The UAE is a very rich Arab country and can easily invest in the revival of such academic work. It is already involved in projects promoting Arabic translations of literary pieces in association with New York University, Abu Dhabi.

In any critical analysis of education as this one, it is important to recognize the threat of foreign influence when it is hovering over people. An article in *Gulf News.com*, reported that a senior Gulf official in Manama, warned of ““the erosion” of the Arab national character in the Gulf states” (Al Baik, 2007). Similar warnings in *The National* over the past few years have pointed to the overpowering force of foreign influence on Arab culture. *The National* reported that Sarhan of the University of Sharjah, said “we forget how to develop our culture, our heritage and especially our language. As Emiratis, we are dropping our language in order to let the foreigner understand us” (Naylor, 2008).

5.3.5 Factors that hinder the use of EMI: The significance of culture and identity vis-a-vis EMI

The role of Arabic in education in the Gulf has changed noticeably by the introduction of EMI. It seems to have assumed a secondary role behind English, especially in the Abu Dhabi education reform. However, this study shows several teacher concerns with

respect to the role that Arabic has assumed. Language, after all, is not just a collection of words joint grammatically to produce meaningful discourse. It is, Crystal (2004) writes, “the repository of the history of a people. It is their identity” (p. 20). Consequently, language is worthy of preservation.

The Arabic language, as an important part of the Emirati history and identity, is a complex phenomenon because of its ties to religion and politics. First and foremost, Arabic is the language of Islam, hence it has strong religious ties with Muslim countries. Arabic unites the UAE to other Arab nations. Hence, Arabic represents the ‘ideological’ and ‘political’ stance of this country. Consequently, when reformers ignore the significance of Arabic it creates emotional waves. The following comments show the kind of deep pride and affection teachers have towards the Arabic language. Asia explains,

I like it in English... but I think it for me, I am Arabic, my first language Arabic... ..I think if in America, if we teach in Arabic, you can see its difficult .

Jamila repeats her earlier powerful comment,

I am Arabic, friends Arabic, students Arabic ... why we teach in English, why?

To clarify, Crystal (2004) explains that, “language is a major means of showing where we belong, and of distinguishing one social group from another” (p. 22). Language allows us the freedom to be ourselves, who we truly are. In her own way, Ghalya tries to express this sentiment in her second interview. She explains,

I want to teach in English...I like speak English, ok? But when I class speak Arabic, teach [Maths] Arabic, I feel, eh, very happy, I cannot... eh...I feel I am teacher in the class because I have Arabic in my hand...

It is important to recognize the significance of Ghalya’s comments. These words have shown that it is her mother tongue that she prefers using, because she feels in control in her own classroom, because she knows exactly who she is. Arabic helps assert her

identity. This is a feeling that is shared by many teachers. Despite the pragmatic benefits of EMI and regardless of its underlying political implications, it is clear that teachers' core beliefs are deeply rooted in their Arab identity, as Ghalya's interview indicates. Therefore, disregarding this factor as simply a technicality of the reform would be foolish.

Western experts are running the education system in the country both in the higher education and now, in the public school system. An entire education system is changing to conform to American or Australian standards. Mills (2008) reports in *The Chronicle of Higher Education* how a former UAEU Law professor and human-rights advocate, Al-Roken, "openly criticized the country's rulers for allowing expatriates to take such control." Worried about national culture and identity he exclaims, "The university is like the army-you cannot surrender it to foreign professors. We're not opposed to them because it is something to do with race, but it is culture....you can't outsource identity." A sociologist at UAEU concurs, "We knew our culture and our values. Now we don't even know our neighbours." Al -Roken's comments apply to all levels of education in the UAE. He laments, "it is not just knowledge that you are passing," he says. "It is deeper than that. And I suspect that those who have no roots here will not pass such cultural identity" (Mills, 2008).

5.3.6 Factors that hinder the use of EMI: How teachers cope with teaching mathematics and science in English

Of course there are other reasons why EMI is considered an unwelcome move. Despite the fact that teachers understand the importance of English, some teachers find the notion of EMI intimidating for two reasons. In this study I looked at the challenges that this imposition demands from the Arab teachers who are not fluent users of English.

Firstly, the general consensus was that some students and teachers do not have sufficient English skills to study or teach science and mathematics in English. For example Lamees explains,

I think it's important to do it in English, to teach English, I think it's better...but it's very difficult for student because the student all the time

read and write in Arabic... and some student have problem with their English.

Asia explains how teaching in English has its drawbacks. According to her, students may not be able to retrace their work at home because they will not understand a given question. She says,

I like it in English... but...the student is most of them see the English is difficult ... and math is difficult ...I teach sometime math and English... now when we write word problem , sometime student wrote in to solve when I am teaching it, but when they go home see the question in English , ehh , they don't know the question... not the solving ... they don't know what the question to do...

Hewson (as cited in Troudi, 2009, p. 12) tries to explain this fact. He points out that it is very difficult to study in a foreign or second language. He writes,

Learning a subject in a second language is particularly difficult when the first language is inherently very different from Western-based languages. Specialized terminology, which is not necessarily congruent between the two languages, pose considerable problems for the teachers and significant learning difficulties for the students.

Consequently, Jamila, finds teaching in English a daunting task for most teachers and suggests a sabbatical where both students and teachers take a year off to study English. She proposes the following:

If we will change, why they don't ...one years, only study language only... teacher and student... it will be go, one year go to learn only English ... I think, step by step... ok, I have another suggestion, why you now I work about 12 years, tell me why you don't tell me go to home, relax we will bring new teacher small to teaching in English...I think they... can teaching English because they learn English in her college.

Actually, the research supports her idea. This is being done with a lot of success in remote areas of Quebec where students don't have much access to English. The curriculum has been changed so that in grade 6, students spend 6 months just doing English. The results are impressive. Studies by Spada and Lightbown (1989) show how such programmes have been into effect in Quebec, Canada with positive results. They write, "there is no doubt that the potential for learning ESL is dramatically better in these [intensive] programmes than in the traditional drip-feed approach. (p. 24).

Of course, EMI also raises the issue of 'saving face'. Some teachers are faced with good English speaking students and feel intimidated. The desire to teach in English, in this case is lessened because teachers are threatened by the students who speak better than them. Dalia laments as she explains the situation,

Maybe you speak with a student and maybe I speak to student one sentence its wrong and have a student very excellent in English language, she understand what I said its wrong, speaking English , speak wrong and they have student excellent in English ...soooooo that's you're feeling ...I have very very good student in my class, in English so when I speak in English I am shame...very bad for me...English is another language...I like this, I like to learn the English, I like to learn the student math about English, its not that bad, ok, but my language is Arabic English language is not...

Besides the fact that teaching in the mother tongue would be easier for both teachers and students, there are other reasons why promoting Arabic as a medium of instruction is advisable. It is the simple fact that resources such as scientific books, journals and publications in Arabic are readily available and regularly used in many Arabic countries. Troudi (2009) writes "Arabic is already a language of science and the Arab world has its fair share of scientific journals and publications (Al-Askari, 2002, Shibani, 2003)"(p. 12). Besides Arab countries, many other countries in Europe, Asia and South America use their own mother tongue as a medium of instruction in schools and in higher education. Hence, there is no reason why the UAE should not follow the example. In most countries, the language of instruction is the mother tongue of its inhabitants. The question is "why are Emirati rulers so intent on educating their citizens in a language other than their own?"Commenting on this point, Jamila cries out,

You love your language, and we Arabic we love my language, ok, I am Arabic, friends Arabic, students Arabic ... why we teach in English, why? Ok why you don't teach eh? ...in Arabic in your country, why?

Unfortunately, there are different views regarding EMI and the sciences. An online article titled 'To Change or not to Change' by Chin and Loos (2007, April), reports about a one day National Colloquium on the Teaching of Mathematics and Science in English. On the topic of English teaching in science, the managing director and CEO of Malaysia Airlines commented, "As I understand, it is aimed not just at improving the standard of the English language among Malaysians. More importantly, it is to give Malaysian learners access to the large body of knowledge in Mathematics and Science which is available in the English language." While a Mara Junior Science College Alumni adds, "to me, it is a matter of survival. In this day and age, it is the country that has good scientific literature that is going to survive." Malaysian Scientific Association president Prof Datuk Dr Khairul Anuar Abdullah agreed: "Most of the information on science is presented in English; most textbooks and journals are in English."

However, during the Colloquium, Lyngkaran and Yoong Suan discussed their research findings and explained that according to their study, young children progress much better in their mother tongue as opposed to a second or third language. According to Dr. Lyngkaran, the online article by Chin and Loo (2007) reports that a "comparative analysis of Tamil and national school UPSR results from 1995 to 2002" conclude that, "subjects in Bahasa Malaysia or English are more difficult for Tamil school students to follow" because these were foreign languages for the Tamil students. Imposed language policies fail to take into account people's diversity. This is especially true of younger children. A lot of this initial research was done in Canada. Jim Cummins (2004) showed the difference between Basic Interpersonal Communication Skills (BICS) and Cognitive Academic Language Proficiency Skills (CALPS). He argues that young children who have basic communication skills in a language (BICS) cannot adequately learn new knowledge and concepts until they have mastered the language and have reached CALPS. Cummins (2004) states: "Conceptual knowledge developed in one language helps to make input in the other language comprehensible" (p. 39). Perhaps, in the context of Abu Dhabi education reform, the challenge then is to increase the number of scientific publications in Arabic or the number of translations so that students can

master their own language. Fortunately, the UAE is a rich country that can afford such projects.

5.3.7 An additional obstacle to the use of EMI: How do teachers cope with the International English Language Testing System (IELTS)

There is an additional limitation to the use of EMI among teachers that is linked to the International English Language Testing System (IELTS). IELTS is a test that measures the four skills of reading, speaking, listening and writing in English and since 1989, has been considered one of the most trustworthy educational testing standards. Created by Cambridge ESOL, IDP Australia and the British Council, the test has become, some would argue by force, a standard requirement for university entrance. The test utilises examples and context that are completely foreign to Emirati society, and yet it has become the deciding factor in ADEC's hiring of teachers. Shohamy (1998) explains that the role of language tests goes beyond simple measurement issues; she defines the role of language tests as, among other things, the determiner of the "success and failure of individuals or groups" (p. 331). The requirement of IELTS scores of 5.5 has been traumatising for many mathematics and science teachers in the Abu Dhabi education reform.

When the Abu Dhabi education reform programme was first initiated, one of the aims of reform was, according to the ADEC Monitoring Agency Information Sheet-4, "to provide training in English language at the appropriate level for the teachers". Consequently, the purpose of learning/teaching English was to help increase the use of EMI in the classroom. Initially, IELTS scores were required of principals but not teachers. However, by the end of 2009 school year, new directives were announced and IELTS scores of 5.5 became a 'strict' requirement for all ADEC employed teachers of ICT, mathematics and science. Teachers were told they had to comply or lose their positions. Suddenly the focus of the ESL classes shifted to IELTS exam preparation courses. IELTS became "a tool for imposing implicit ideas about success, knowledge, and ability" (Noam 1996 in Shohamy 1998, p. 332). The teachers were dismayed. They needed support in subject specific language and yet the focus of their 'English' had shifted to the IELTS examination. Suddenly resentment towards learning and using English language doubled. In fact, "we hate IELTS!" became a recurring phrase uttered by teachers.

The IELTS requirement did nothing to help improve the attitude of teachers towards English. In fact, the teachers in this study are ignoring the ADEC requirement and have yet to sit for the test examination. Teachers list two reasons for their resistance. The first reason is that teachers believe ADEC will change their mind on the IELTS requirement, since they have often changed their position on 'teaching/teacher' related matters. The second reason is though ADEC have imposed IELTS as a requirement, they have not strictly enforced their decision. Of course, in my opinion, there is also a third and more valid reason for ignoring the IELTS examination and it has to do with the fact that IELTS is yet another imposed requirement of the Abu Dhabi education reform with no teacher input. It is clear that, according to Shohamy (1998), "language tests, like languages, provide a reflection, a mirror, of the complexities and power struggles of society" (p. 343).

According to Shohamy (1998), "critical language testing assumes that the act of testing is not neutral. Rather, it is both a product and an agent of cultural, social, political, educational and ideological agendas that shape the lives of individual participants, teachers and learners" (p. 332/334). Testing, in other words, is used to exclude and classify 'successes' and 'failures'. Shohamy (1998) gives several examples where testing has been used as a means to collect information, to feed information or to exclude. In other words, they are used to carry out agendas, mostly political in nature.

Policy makers in central agencies, aware of the authoritative power of tests use them to manipulate educational systems, to control curricula, to create new knowledge, and to impose new textbooks and teaching methods. ...while on the political levels tests are used to create de facto language policies, to raise the status of some languages and to lower those of others, to control citizenship, to include, exclude, gate-keep, maintain power, offer simplistic solutions to complex problems , and to raise the power of nations to be "the best in the world. (p. 337-338)

Obviously, tests have power. The power of tests lies firstly in the fact that they tend to use numbers. For example the science/mathematics teachers need to score a 5.5 in order to keep their jobs. Tests also hold power because 'the ownership of the information' belongs to the testing companies or those who put the tests. According to Shohamy

(1998, p. 338), tests also “symbolize social order” because tests provide ‘perpetuating dominance’ for the dominating elite, as is the case with the Abu Dhabi reform. Tollefson (1995 in Shohamy, 1998, p. 338) recognizes three facets to power of testing: ‘state, discourse and ideology’.

The effect of IELTS on teachers is not discussed in detail in this study simply because this was never an ADEC teacher requirement in the initial stages of reform and was consequently never considered as part of my research questions. Out of 11 interviews, only one single teacher mentioned IELTS. In her second interview in June 2009, Kalmah2 commented,

The problem is that we have to take the IELTS to teach the English, the IELTS only certification, it will not give us, I don’t know how to say... it will not give us any information to teach this language in the class. This is ... I think this one, it’s need courses for the teacher to give them maybe words, to give everything that can use it in the class but the IELTS it’s not a good idea that all teachers they have to take it because they study for the certification of ...because they have to catch the job.

Most teachers later agreed that the IELTS examination was not an appropriate form of ensuring the use of EMI in science and mathematics classes. Review of teacher journals following this new directive indicate further disapproval of IELTS. Teachers do not believe that an IELTS course will translate into better use of EMI in the classroom. Discussions in the ESL classroom and consequent reports in journals reiterate this point. Jamila’s journal reads,

ADEC force us to take this certification in May 2010 in order to stay or keep in the ministry of education...IELTS exam does not benefit me in my teaching that’s because IELTS certification and it does not have any relation to my work which is regular scientific and academic vocabulary words...for example, if I get IELTS certification what is it benefit for my student if my student and me have the same language which is an Arabic language?

In addition to this comment, Jamila also discusses the disadvantages of IELTS in her journal, the required high scores of 5.5, the fact that teachers did not have time to

prepare for IELTS and that teachers have no financial support from ADEC (Appendix H). Another entry by Kalmah, (Appendix I) also reiterates similar negative comments about IELTS. It reads as follows:

In my opinion, this is not good idea to learn language. IELTS does not add new vocabulary to science teachers and it will not add any new methods for teaching. Also students for IELTS need time to study. The teachers have many things to do, they are teaching, prepare for the lesson, prepare activities for the lesson and they have to give test and correct it. Also IELTS is costly...

Therefore, introducing IELTS examination as a benchmark for teachers' knowledge of English has proven to be another example of how teachers are marginalised and has so far not helped increase the use of EMI.

5.4 Additional findings regarding teachers' perspectives towards curriculum

This study does not aim to expand on the discussion of curriculum, as it is a huge topic and needs to be separate. However, in the course of the interviews the teachers compare the mathematics and science curricula in English and Arabic, so it is mentioned here.

The interview results indicate that teachers believe the new English curriculum is overwhelming, unimpressive and difficult. For example, Asia commented,

Our curriculum in Arabic was stronger than the English one ... not as packed...in some grade its nothing, they teach nothing ... the curriculum in all grade... similar...

Many teachers share this opinion. The radical curriculum changes by ADEC are daunting to teachers. The new Abu Dhabi curriculum is very different from the old MOE Arabic curriculum teachers keep referring to. The new curriculum is an ADEC adapted version of a South Wales, Australian curriculum of science and mathematics, taught in English. According to the school's 'curriculum and summary' document

(Appendix J), the primary difference between the old MOE curriculum and the new ADEC curriculum is that,

The textbooks are used as a resource and not as the curriculum. They are to guide the teachers and students throughout the year. This encourages the pursuit of knowledge, critical thinking skills, reasoning, research skills, and the application of knowledge learnt. The students are assessed throughout the year against ADEC standards. These are expectations for students in terms of knowledge, skills and understanding and are incremental across grades 6-9. They are based upon international standard.

This point can be seen in Jamila's journal. These difficulties are reiterated by most teachers. Complaining about the English textbook (which she considers synonymous to the curriculum), Jamila writes (Appendix K),

But I don't like curriculum because is it English in english more new vocab. How can I read it to know what subject inclusion. And How can students study...so that I need more time to translation all subject then understand all information. All student's can not uses this Book...

Of course, if used appropriately, the new curriculum is suitable for the level of the students at the school and is comparable to other science curricula around the world. However, the reason teachers find it too simple is because they fail to realise that they are meant to teach students problem solving and critical thinking skills rather than simply using the book as a curriculum.

Troudi and Alwan (2010, p. 113) reveal in their study that, teachers in the UAE consider "the 'book' to be the curriculum and 'curriculum change' as having a new set of materials to teach. In fact, rote learning encourages the use of the textbook as a curriculum. However, the new reformed curriculum and the basic pedagogy to which it conforms is intended to move teachers away from rote-learning. Such a move requires a change in teacher beliefs. This reverence of the old as opposed to the new curriculum, Marris (1975 cites in Fullan 2007, p. 21) explains, is a natural reaction to and an important part of a "familiar, reliable construction of reality" and provides comfort

because it is known. The study indicates that teachers are not quite ready for this kind of transition and therefore are not ready to embrace the new curriculum.

Another possible reason to explain the unfamiliarity with the new curriculum is that teachers have never had a say in its development. Troudi and Alwan (2010, p. 113) write that teachers in the UAE have never been part of “the curriculum development processes” because they rarely witness the “needs analysis, curriculum evaluation, teacher training, curricular support and modifications of materials” processes. Teachers, in principle, should be encouraged to develop curricula because they use them on a regular basis. In fact, they should be consulted because they are well aware of their students’ needs and should therefore, Troudi and Alwan (2010) conclude, “exercise the power to adapt the curriculum to them” (p. 109). Such a move would naturally facilitate the process of implementation of reform and guarantee that the proposed curriculum is taught with the least resistance. Bushra, unimpressed by the overall changes comments,

Actually, if they keep old curriculum and they just focus on eh, eh...
teaching ways ... much better... better than changing the curriculum and we
start from the zero.

In fact, Asia points out the fact that teachers are the most aware of their students’ needs and should have a say in decisions regarding curriculum and teaching. She remarks,

What I am believe and what I am sure ...this is our country, we know what
we... how I can teach ... we are teach our student. I can teach ... I know
what she know my student, what point know so I can learn her this way.

One final problem is that teachers believe they will not be able to fully finish the new curriculum hence the focus has shifted heavily on ‘finishing’ rather than ‘educating or teaching’. Subsequently, getting through the curriculum is a major source of stress. To explain this problem Fullan and Hargreaves (1996) write that “prescribed curriculum developed at board level or above tend to foster dependency...on coverage, on ‘getting through’” (p. 34) as opposed to the quality of teaching. For example, a page from Ebtisam’s journal illustrates this feeling (Appendix L). She writes,

What can I say...what can I do in these days...I feel bad badbadbadbadbad
BAD...No one can feel what can I feel now...But this is not the end of the
world I will cont... and I will finish this curriculum in shah Allah...

In summary, policy makers have to acknowledge the circumstances that dictate practice at ground level and the possibility of diverging from it. They have to make room for such complexities. In fact, Chisholm and Leyendecker (2008) look closely at the gap that is created between policy and practice in curriculum reform and write that “while there is agreement on the aims of reform, there is evidence of divergence in practice. They argue that in practice ideas are ‘recontextualised’ and displaced, and are often unable to meet the social development goals demanded of them” (p. 203). Therefore, Fullan and Hargreaves (1996) insist that “the separation of curriculum from instruction is an historical legacy that can become an instructional fallacy. It is time to bring them back together” (p. 35).

5.5 Positive results

There are additional findings that appear in this study that I feel need to be discussed. The first and foremost of these issues is that the Abu Dhabi education reform is not a total failure hence it would only be fair to mention its merits, from the perspective of the teachers themselves. In this section I will discuss four different positive findings that emerged from this study.

5.5.1 Some teachers acknowledge the need for reform and implement change in pedagogy and EMI

The data indicates that seven of the 11 teachers surveyed acknowledge the importance of teaching science and mathematics to students in English in order to prepare them for higher studies and better future possibilities. Clara, in her second interview, voices concern about Emirati students who are lagging behind students in other parts of the world. In her interview, she acknowledges that the low levels of English proficiency of many of the Emirati teachers and the old teaching methods are not helping Emirati students, whose English language skills are below those who were studying in international or private schools. In fact, Clara believes that children in the public schools in Abu Dhabi may benefit from reform, using new systems of learning, explorations and critical thinking. Clara explains,

We find that we are a bit late in starting English with them[students]... the way of learning was not the perfect way to help them to get quickly to the other students. So now by using reform, or by using their methods, maybe it will improve and our ways in the exams and our explaining of the scientific subjects... I felt it was not completely right.

The positive effects of the Abu Dhabi education reform should not be discounted completely. It is important to remember that the Abu Dhabi education system is not a failure to start with; however, it needs to be revamped. The new system's goal is to develop the critical thinking and problem solving skills of most of the Emirati youth, who need to develop these skills in order to succeed in today's knowledge economy. The new reform also aims at improving the mathematics, science and ICT curriculums in order to raise the standards of the students by international levels. After all, the UAE ranked quite low in the international PISA tests that compare standardized test results in English and mathematics. We can of course argue that it is not fair to compare the UAE to other countries as there are serious differences in systems and culture. Nevertheless, today's world demands different sets of knowledge and skills and that is what the Abu Dhabi education reform seeks to accomplish.

Some teachers already acknowledge the changes happening in reform. For example, Falak, in her second interview shows particular enthusiasm towards the new pedagogy, demonstrates eagerness towards the practice of exploratory learning, using gadgets and instruments to engage in games and learning activities. She explains,

We see changes... now we use in our class explore things ... we use some ideas like help student to discover a lot of thing in our lesson ...but we want, ehh, develop ...we want to be better than now... We want student to ask about some difficult ideas in our lesson...

In spite of her enthusiasm, Falak recognises that her students are not ready for such a fundamental change in thinking and that they prefer to be spoon-fed. Language is not the only issue. Students are reluctant to question the given or to think 'outside the box'. Students seem to prefer rote learning as opposed to inquiry learning. Falak sadly concludes,

But our students didn't ask any question about difficult idea in our lesson...we must give it them...

It is clear from the study that some teachers believe in the need for change. Consequently, they are more aware of the subtle changes taking place. But it is also important to note that the teachers who do recognise change are also aware that most students or colleagues are not completely ready for radical change. Nevertheless, some changes are being implemented in both pedagogy and the use of English in the mathematics and science classes.

5.5.2 Positive use of new pedagogy and EMI in mathematics and science classes

The data collected indicates slow but definite changes in the use of the new pedagogy. Evidence from teacher journals indicates that teachers have partially started to apply different approaches to their teaching, possibly expanding on practices they already used. For example, Asia writes in her journal (Appendix M),

I can repeat any question and find different way to solve the question until 99% of student understand what I want... I may make my student think in creative way...

Asia's reference to a 'creative way' suggests that she is aware of some possible pedagogical changes that are taking place such as the delivery of an increased number of games and activities. Nevertheless, there is still evidence of 'repetitive' teaching and possible teacher-centeredness. Obviously, change takes time and a change of paradigm can only fully happen once the teacher allows the students the time to explore different ways of learning. Jogsma and Jogsma (2006) confirmed this point reporting that "while teachers still relied primarily on whole-class teaching, they used activities which had students more involved... Grouping for activities began to be more comfortable for both the teachers and the students" (p. 11). In a similar shift towards a more learner-centered pedagogy, Lamees's interview remarks show a shift, though seemingly slow, towards a new pedagogy and EMI in the classroom. In her first interview, she says,

Concentrate on the activity of the girl, and the lab on the ehh vocabulary sometimes... yeah, its better than in Arabic, I like it but its very difficult for the student...its different ,very different...

In her second interview, Lamees reiterates the same idea, but adds that students prefer the new system.

Yeah, yeah...I think teaching method its very useful for the teacher and for the ehh girl.[the new one], yes , the new one....yeah, yeah, its ehh more skills for the girl , more activity for the girl, yeah , ... to explain for the girl in the classroom , how to make experiment how to make this activity how the girl get the information from theirselves not from the teacher...And how ehh the girl works together, how to apply the skills in the classroom, I think its ok for the girl...I think the girl like this ehh than the teacher open the book and read it ...

Despite teachers' initial reluctance to change and a constant repetition of "the old system was better" comments, the data collected from the interviews and observations in this study show a slight positive change in some teachers' attitude towards the new pedagogy.

5.5.3 Positive use of EMI in mathematics and science classes

There are also positive changes in the use of English in the mathematics and science classes. The data collected from interviews and class observations (Appendix N / Appendix O) indicates a significant increase in the use of EMI in the mathematics and science classes. For instance, Kalmah, one of the science teachers explains how she used to teach in Arabic before English was imposed on them. Now, she gives her students English vocabulary for science in an attempt to implement change. She says,

Before I didn't use the English in my class ... we learn (teach) new words to give the student to learn it... yeah, this is yes...good change

In their conclusive section of their study on primary science and mathematics teachers using EMI in the UAE, Jongsma and Jongsma (2005/6) reported, "considerable growth

in the skills of both the teachers and their students. Teachers changed their attitudes and their procedures over the academic year. They gained confidence in their abilities to teach science and math through English” (p. 235).

This kind of change is also observed among some of the teacher interviews in this study. Asia, a mathematics teacher, explains how she has changed her perspective on EMI. She says,

Now for my student , daughter or for my son I want and I try this...
window, I want them to know English, ehh... because ...we didn't ehh ,
first, we didn't know the important for English... but now we see...

However, the fact that some teachers have come on board and are willing to change does not alter that imposing EMI has been stressful and emotionally conflicting. In addition, it does not necessarily render the notion of EMI right. A good knowledge of English is crucial in today's market economy. Nonetheless, it does not imply that English has to become the medium of instruction for thousands of students whose mother tongue is Arabic and whose historical and cultural background do not require such a move.

5.5.4 Paradoxical admiration of the West

A fourth positive aspect of the Abu Dhabi education reform is with regards to the Emirati 'mind-set' towards foreigners. Despite teacher and newspaper criticism of 'too much foreign influence,' Emirati teachers themselves have personal preferences for Western products and attribute value to foreign education. Similarly, the government rewards or gives extra recognition to 'foreign' consultants. Thus, there seems to be, in the Emirati psyche, a paradoxical admiration of the West.

It is the UAE's geographical position and its newly found economic wealth that may explain this phenomenon. The UAE, then known to the world as the Trucial States, caught the attention of the West in the early days of the 20th century. As foreign presence increased in the country, so did the Emirati's dependency on their expertise and knowledge. The economic and political colonial history of the Emirates may have

something to do with the mind-set of the post-colonial Emirati, even when the behaviour conflicts with feelings of national identity.

In the course of this study, the dual conflict of pragmatic versus ideological, English versus Arabic, foreign versus local issues appeared repeatedly. It is clear that foreign presence and related issues are taking their toll on the Emirati psyche. Asia, who has always been an advocate of Arabic language in the classroom, approached her ESL instructor, and asked for assistance regarding her child's schooling. She wanted to enrol her son in a private school and needed the instructor's help in rearticulating her own words. She had questions to ask the English principal and wanted her questions correctly phrased. As a parent, she wanted to find the right school for her son. Asia's questions included concerns about the school's curriculum, Islamic studies, as well as English and Arabic languages. Finally, Asia ended her list of inquiries and requests with one more statement,

I prefer an English native-speaking teacher for my child.

Despite her strong commitment to Arabic and her culture, she wanted a 'foreigner' to teach her own child. This paradoxical admiration of the West does not come as a surprise. It is no secret that the UAE government has used Western academics and educational experts to overhaul the old education system. This strategy to import education from the West or English speaking countries is spearheaded by the elites of the country. Al-Roken, a former UAEU law professor, explains in *The Chronicle of Higher Education* that, "there is a conviction here among the ruling elites that they can buy and outsource everything because of the oil wealth" (Mills, 2008). According to the article, "foreign academics are so deeply involved in the public higher –education system here that... it is as if entire universities had been purchased overseas and reassembled in the desert."

The policies of the Abu Dhabi education reform project are very similar. Just as there was a move to import Western academics to overhaul the nation's universities to conform to American standards in the 1990s, there is a move towards importing English speaking teachers in the 2000s, to emulate foreign/ mostly Australian standards of education. These 'experts' collaborate with the government officials to essentially change the public school system. At the present, Ministry of Education experts who

happen to be native speakers of English outnumber their Emirati/Arab counterparts. As a result, Arabic is on the verge of being either eliminated or critically marginalized as the language of instruction in favour of the more widespread English.

The last chapter of this thesis will consider the results and discussions generated from Chapter Five in order to extend implications, make recommendations, and draw critical conclusions regarding the findings of this study.

CHAPTER 6.

IMPLICATIONS, RECOMMENDATIONS AND CONCLUSIONS

The Abu Dhabi Education Council (ADEC) website (2009) introduces the current education reform as an operation that focuses “on better preparation, greater accountability, higher standards and improved professionalism.” The website further explains that “rote instruction is being replaced with more interactive forms of learning, and English-language education is being integrated into other subjects, such as math and science.” It concludes by explaining that this reform will take place “while preserving local traditions, principles and the cultural identity of the UAE.” However, this study has not drawn the same conclusions but rather (through the eyes of the teachers) has found substantial evidence of a gap between what the reform programme is purporting to achieve and what is actually taking place in schools.

This concluding chapter will consider the implications that such a gap intimates and provide recommendations. Finally, it will draw critical conclusions about the Abu Dhabi education reform programme.

6.1 Summary of key findings

One of the primary aims of this study has been to raise the consciousness of those participating in the reform. It has also sought to understand whether or not the teachers’ needs have been met and to what extent this can affect the successful implementation of reform. The idea that there are discrepancies is clearly stated by Joseph Ghaly, the Executive Director and Chief Executive Officer at the Association for Supervision and Curriculum Development (ASCD)-Middle East, on *UAE Interact*, on February 25, 2009, who comments, “there have been a tremendous amount of initiatives to support education development but the outcome has not been up to the expectation of the projects.”

This study has revealed mostly negative perceptions regarding reform in particular with teachers’ perceptions of the work environment and the new pedagogy. It has also disclosed numerous instances of teacher marginalization as the result of a top-down reform and has unveiled a prevailing sentiment of teacher disempowerment because of

the presence of foreign consultancy bodies operating in the country. Teacher perceptions regarding EMI and the obstacles in the use of English in the classroom have been numerous in particular with cultural drawbacks relating to the use of EMI in mathematics and science classes. Surprisingly, the study revealed a few unexpected positive findings with certain aspects of reform.

6.2 Implications of this study

6.2.1 Implications of negative attitudes towards reform

The findings from this study show that teacher perceptions regarding reform are generally negative. Ambivalence surrounding reform is a common phenomenon as change is a process that takes time and needs internalising by individual teachers. In order to deal with the complexities that arise from these changes, it is important for teachers to be given the time to absorb and implement them successfully. Therefore, the study results imply that negative attitudes towards reform are a natural consequence of change and should be addressed seriously in reform initiatives.

6.2.1.1 Implications of negative attitude towards the work context

The results of this study show negative teacher attitudes about the largely unchanged school environment. Historically, context is as an important element which must be considered in a reform programme if it is to be an agent of change. But often the teaching environment is undervalued and teachers are rarely given ownership of their work environment. Therefore, this study suggests that unless teachers are given the proper class/school environment and the full ownership of that environment, the process of sustainable change will be relatively slow.

6.2.2 Implications of teacher marginalization

Teacher marginalization is a natural consequence of any change imposed from the top. Such practices exclude local teacher involvement in the development of reform policies and teacher expertise and know-how is ignored while greater value is given to outside/foreign knowledge. The following sections consider some implications of this study regarding teacher marginalization.

6.2.2.1 Implications of teacher perceptions regarding imposed top-down reform

The Abu Dhabi education reform promotes a top-down policy which has led to a great deal of teacher resentment. Levin (2009) writes, "...whatever the motivation, imposed solutions do not work...In the short term, they produce frustration and resistance from educators..." (p. 259) while long term change fails to motivate and disappears. The findings of this study suggest that some Emirati teachers hope to see the consultants leave the schools, so teachers can get back to their previous practices. This implies that teachers have not embraced reform. Top-down reform will be very difficult to sustain unless changes are introduced in accordance to the prevailing reform model.

6.2.2.2 Implications of teacher perceptions of 'not being involved in the reform processes'

In order to change the existing reform model, teachers need to become the 'agents of change'. However, because of the top-down nature of the Abu Dhabi education reform, teachers have not been involved in its process. In fact, the teachers in this study have not, at any point, mentioned a desire to take part in the decision making and the design of the reform.

It is quite unfortunate that top down reform does not encourage teachers to take part in decision making processes. Teachers' contributions are quite invaluable as they are the ones who can make a real difference at the grass roots level. They are familiar with the needs of their students and are in a position to implement sustainable change. Arne Duncan, the US Education Secretary, expressed his opinion on the value of local teacher talents, stating in an interview with the U.S. News magazine's senior writer Kim Clark (2010), that "what we want to do is simply invest in what is working at the local level. The great ideas always come locally, from great teachers and great principals. We want to take those good ideas to scale" (p. 30).

Therefore, the results of the study imply that acknowledging teachers' skills, knowledge and experience could in fact enlist a powerful force to implement change, while the opposite will only detract from this process.

6.2.2.3 Implications of employing foreigners as reform agents

The findings of this study suggest that the presence of a large number of foreign teachers and consultants is disempowering for the teachers. In actual fact, the topic of foreign involvement in education reform has been discussed extensively in this study. It is evident, through the interviews that adopting a foreign reform policy and recruiting a foreign work force is not welcomed by Emirati teachers. The negative attitude towards a foreign presence may be interpreted by the fact that foreign reform is based on the educational needs of a foreign society and hence is not based on domestic needs. Research, has shown that solutions crafted outside a system rarely work within it. Therefore, the Abu Dhabi education reform may have limited success, because it is an 'imported' reform.

The findings indicate that teachers feel a lot of resentment towards this 'foreign' reform. This is because change affects the 'social system' of individuals and therefore feelings of disempowerment become quite common (cited in Fullan 2007, p. 23). Hence any change that threatens this framework becomes suspicious. Naturally, a foreign 'conceived' reform that in theory and practice promotes 'foreign' values becomes negative. In spite of the great wealth of the country, Emirati society is relatively conservative and has a value system that is governed first and foremost by religion and next by family priorities. Therefore, any change incompatible to these values will create complexities that need to be acknowledged and addressed by reformers. Hence, the current foreign-conceived reform will be more difficult to implement than initially predicted.

6.2.2.4 Implications of negative teacher perceptions about changes in the new pedagogy

The findings of this study suggest that the negative perceptions of reform extend to pedagogy. According to the study, teachers constantly compared the old pedagogy with the new and claimed that the new programme was ineffective. Naturally, a 'known' system provides a reliable and better alternative than a new one. It also provides more comfort. Therefore, this study suggests that the process of change requires from teachers a detachment from what seems 'comfortable and safe'. In other words, embracing a new pedagogy is a lengthy internal process that needs to be accounted for in order to have a successful reform.

6.3 Implications of teacher perceptions regarding EMI

The problems of the Abu Dhabi education reform are primarily the result of a top-down system that imposes English as a medium of instruction. Although EMI may have some merits, I do not think it is necessarily appropriate in an Arab setting. In fact, although some of the findings of this study point to some positive comments with regards to EMI, most of the data reveals that the shift to English as a medium of instruction cannot be imposed on Arabic speaking teachers and that English should not be the language used in the mathematics and science textbooks in the Emirates.

Research has shown that the use of EMI in the sciences does not necessarily improve learning. For example, in line with the Malaysian government's Vision of 2020 (Hudson, 2009, p. 165), the government introduced EMI to teach science. However, after years of EMI at school level, the Malaysian government has gone back to the use of Bahasa Malaysian as language of instruction for all subjects. Students did not show any improvements in scientific subjects when they were taught in English. Though the debate continues, there is enough evidence to shed doubt on the results from EMI policies.

This study, therefore, predicts that EMI will slow down the process of change, will be harmful to the Emirati identity in the long run and will hinder mathematics and science learning for Arabic-speaking Emirati youngsters.

6.3.1 Implications of the extent of the use of EMI in mathematics and science classes

The findings of this study suggest that some teachers approved the use of English as a medium of instruction and were willing to use English only in the classroom believing it to be 'perfect' to teach mathematics and science. The fact that some teachers have such a mind-set is devaluing Arabic and giving it a secondary status. This study suggests that an 'ignorant/innocent' mind-set to promote EMI will eventually marginalise the Arabic language.

6.3.2 Implications of the role of Arabic in the Abu Dhabi education reform as opposed to EMI

Some teachers recognize the benefits of EMI, and believe that it would not affect the Arabic language and culture. After all, according to them, Arabic is the medium used to teach Arabic, religion and social studies. However, many studies show that English does influence the learning of the Arabic language and Arabic culture. For example, Karmani (2010) concludes that “almost half of all students enrolled in both English-medium and Arabic-medium programmes tend to agree that prolonged exposure to English induces Arab students to be more receptive to Western cultural values ...[and] that exposure to English-medium education has the effect of further alienating Arab students from their Arab-Islamic cultural traditions” (p. 110). Other critical writers such as Troudi and Jendli (2011, p. 5) are concerned about the domination of English on Arabic.

Consequently, there is a need to raise awareness of such hidden agendas that aim to promote neutrality and oppose fundamentalism. The study’s findings suggest that ignoring the significance of Arabic and promoting EMI will gradually neutralize Emirati identity. Therefore, the results of this study suggest that the influence of English, expressed by the new curriculum and pedagogy in the Abu Dhabi education reform, will indirectly ‘water down’ the Emirati language and culture, and hence reform participants should be alerted.

6.3.3 Implications of factors that hinder the use of EMI

The findings of this study suggest that there are emotional factors that affect the use of EMI. One such factor is the strong positive emotional sentiment Emirati teachers feel towards their language. Teachers acknowledge a feeling of warmth when teaching in Arabic and feel that they control the subject better when using Arabic as a medium of instruction, while English is likely a source of problems and a burden, which will of course affect teachers’ sense of self-esteem and confidence. This will in turn adversely affect the quality of the students’ educational experience. Consequently, the study predicts that EMI will have a negative impact on the psyche of the teachers and this will slow down the process of change.

6.4 Other Implications of this study

6.4.1 The model is wrong:

The study concludes this imported educational reform is not compatible with the UAE context and needs to be changed to incorporate local ideas. Doing so will make it possible to empower the participants of reform.

6.4.2 Intellectual consumerism/huge investments

The rulers of the UAE have invested huge sums of money in the Abu Dhabi education reform and therefore expect success. The UAE is a consumer society, where most expertise is imported. Reform, just like any other commodity, is a product that has been imported to improve education.

Education reform is nothing but a business-like transaction that is expected to render positive returns. However, change is difficult to implement if participants are not ready for it. In addition, the distribution of resources into schools and the major physical changes on school premises have not been fully realized. Consequently, the results from this study suggest that though there is huge financial commitment to reform, the implementation is moving slowly and that is somewhat affecting the ‘return on investment’ of this reform. In other words, there are complexities that hinder the expected progress of reform.

6.4.3 Problem solving solutions derived from ‘technology mentality’

The findings from the study suggest that critical thinking and problem solving skills are being implemented at a slower rate than anticipated. In fact, evidence from the study shows that reform participants, including parents, are not ready for intellectual independence and inquiry because, this reform depends mainly on a ‘technology transfer’ mentality rather than a home-grown one. The Abu Dhabi education reform is a foreign based reform, imported to fill a need in the UAE ‘education market’. Intellectual independence is yet to fully emerge from this system. Besides, conservatism still prevails in many parts of the UAE. Therefore, the findings from this study suggest that critical thinking and problem solving skills will need a much longer time to make their way into schools, much longer than first anticipated as both teachers and parents need to

change their own pedagogy and understanding of reform in order to allow changes in students' thinking.

6.4.4 Empowerment issues

The study reveals that the Abu Dhabi education reform is a top-down reform that permits no input from teachers. In fact, this reform has marginalized its participants, especially the teachers. This study implies that there is a need to empower the participants so they are heard.

6.4.5 Parents/community need to be better informed about the nature of reform

One of the main problems of implementing the Abu Dhabi education reform is that the public, including teachers, students and parents are not properly informed about the reform project and hence are not supportive of it. The lack of public knowledge is partly due to the lack of proper marketing by ADEC to inform the public about the new educational reform. Fullan (1994) explains that in order for systems to change, individuals both at the top and the bottom should be willing and able to change and “coalesce in the same change direction” (p. 143).

The UAE is a relatively rich country, so finding public support and mobilising the help of the community can be relatively easy if marketed and managed properly. Such involvement in reform would help develop feelings of ownership, not only among teachers but also with parents and the larger community including businesses. Healey and DeStefano (1997) explain in their study on scaling up school reform,

significant parent and public engagement is essential. Clearly, if reform is about deriving local answers, widespread participation among stakeholders is a requirement. Teachers, parents, and students should all take part in the design, development, and implementation of solutions aimed at improving their specific educational situation.” (p. 9)

Therefore, this study implies that in order to affect change, ADEC should scale up its efforts to market the reform vision to all the participants including teachers, parents, students, administrations and businesses, so people take ownership of the Abu Dhabi education reform and get involved in its successful implementation.

6.4.6 It is possible to reform curriculum without imposing a foreign language

The problems of implementing curriculum change are primarily because of reformers' top-down approach. Firstly, teachers were never involved in giving input, so never felt ownership of the reform. Secondly, it seems that ADEC did not succeed to properly adapt foreign curricula. Thirdly, ADEC has also failed to advertise the changes and explain their implications. Finally, the curriculum constantly fails to adapt to the local needs. Most importantly, ADEC has not succeeded to include the input of local Emirati curriculum experts, who are more familiar with the local mind-set.

Continuing to proceed with the reform in this manner may also lead to a greater questioning of the use of English as a medium of instruction. Perhaps English as a medium of instruction should not be imposed on Arabic speaking teachers, nor should English be the language used in the mathematics and science textbooks. Research studies show that curriculum and pedagogy changes can be successful without introducing a foreign language as a medium of instruction. Hence, the study implies that an imposed curriculum in English slows down reform efforts.

6.5 Recommendations

The following recommendations could be considered in order to improve the current educational reform taking place in Abu Dhabi.

6.5.1 Teachers are an integral part of reform

This study raises serious questions about the lack of teacher involvement in and accountability for reform. One could wonder to what extent teachers would assume ownership of change and engage in reform if they had been sufficiently involved in its planning. Therefore, this study recommends that Emirati teachers be given the responsibility to become an integral part of the educational reform. In addition, teacher opinions and their 'voices' need to be heard and their knowledge and expertise given more consideration.

A possible method to involve teachers in reform is to help them understand it. First and foremost, teachers need to properly understand the requirements of reform so they are able to provide input. This could be done through panel discussions or electronic

forums. Second, during the implementation stage, there should be close follow up on classroom practice. As a result, three important steps should be taken: a) the input from those sessions should be part of a larger discussion group involving not just consultants but the higher policy makers in ADEC. b) Teacher experiences and views should be heard which might lead to possible review of major policies. c) A stronger teacher training programme should be provided on a needs basis if there are huge classroom discrepancies. Third, an on-going proper survey should be part of the programme so issues that were missed are highlighted and problems addressed immediately. Above all, people from the main ADEC office need to be more visible and approachable by everyone, both teachers and consultants so concerns can be heard and addressed without delay. Sometimes teachers just need to vent and that is an important emotional need too. Finally, the process of reform itself should be more transparent where problems are shared by both the policy makers and the teachers and matters are discussed at all levels.

6.5.2 ESL instead of EMI

This study also raises serious questions about the usefulness of EMI in public schools. One wonders whether core pedagogical and curricular changes would not be better implemented in the mother tongue. It seems that Abu Dhabi education reformers have adopted an EMI policy similar to that of tertiary levels in UAE higher education, based on a paradigm of “discourse of social progress, economic and technological advancement, global communication, and trade,” particularly in academic /scientific areas (Troudi and Jendli, 2011, p. 3).

This study, on the other hand, provides information that could help reform developers design programmes that would reinforce the existing English language programme while introducing better pedagogy in the classroom as well as maintain Arabic language and culture. Developers could also introduce a curriculum that does not necessarily depend on English textbooks. The new curriculum could develop critical thinking skills and problem solving skills using culturally sensitive materials and the Arabic language adapted to meet local needs. As stated earlier, there are no Gulf studies that show that students learning in English medium outperform those studying in the mother tongue (Troudi and Jendli, 2011, p. 14). In fact there are studies, such as that of the Malaysian reform, which show that children taught in their mother tongue (Tamil in this case) performed better in science than when taught in Bahasa Malaysia or English, according

to an article by Chin and Loo (2007) in The Star.com. Consequently, this study recommends that Arabic be reinstated as the medium of instruction for mathematics and science, while English is given a stronger role as a foreign/second language in schools.

6.5.3 Reform is imperfect and complex

Finally, this study raises serious questions regarding the top-down practices of the Abu Dhabi education reform. The fact that there are a range of problems, related to empowerment or support issues, in implementing reform necessitates a reform model that can take all these factors into consideration. Such a model is provided by Fullan (1993, 1999, 2003, 2007), which is at the heart of this study's theoretical framework, as discussed in chapter 3. This model recognises that successful reform requires an understanding of complexity. This study's theoretical framework introduces a model which shows that a successful critical reform model necessitates an understanding of policies in three major separate groupings; curriculum and assessment policies, teacher development programmes and work conditions for teachers as well as the presence of CALx factors such as globalization and imperialism. The model also incorporates a circulatory position of consciousness-raising and reflection. The theoretical contribution of my thesis will be discussed in further detail in the next section.

6.6 The theoretical contribution of the study

This section of the chapter will discuss the theoretical contribution of the study. As previously discussed in chapter 3.6.3, the theoretical model of this study has borrowed certain points from Fullan's (1993, 2007) model where language, work context and curriculum overlap in the presence of a moral purpose and support from the community. This study's theoretical contribution is achieved by democratising Fullan's framework.

6.6.1 Some suggestions to democratise Fullan's theoretical framework

In order to democratise this paper's theoretical framework, some major changes are necessary. First and foremost, the moral purpose of reform should originate from the teachers, not just policy makers. Hence, the model changes direction and becomes a bottom up model. It is important to realise that teachers need to be involved in choosing the textbooks and setting the curricula which they think will best benefit their students. This process, in turn, encourages reflection and increases ownership, because teachers

assume responsibility for their choices. In this way, teachers can decide what works the most at the grass roots level. In a bottom-up framework teachers can decide the appropriate pedagogy that maximizes knowledge and on the proper assessment measures that lead to improve educational outcomes. Ownership empowers the teachers, improves student achievement and develops parents' support. Figure 4 clearly illustrates these points. In other words, this remodelled bottom-up model, though idealistic, is what I think we need to aspire to in order to improve the educational reform in Abu Dhabi. Nevertheless, it is important to bear in mind the importance of the support that comes from the top, hence a mix of bottom-up and top-down reform might yield more realistic results.

Furthermore, there is a need to integrate the different components of Fullan's model so that they are not viewed separately but rather can be represented visually as a true Venn-diagram so that the circles are not just aligned together but that the union of these components is the place where successful educational reform takes place. In fact, according to Figure 4, if only two segments out of three are incorporated, success will then be partial. Another important distinction between the models is that Fullan's two-dimensional model does not clearly convey the idea that profound change must emanate from teachers. The following model, The New Critical Teacher-Centered Reform Model adapted from Fullan's model of Educational Transformation, which is the model for this study's theoretical framework, illustrates this more clearly, both visually and theoretically. It also places CALx factors such as linguistic imperialism and globalisation at the forefront to be acknowledged by all the reform stakeholders so that these factors can't be ignored but are managed at all levels of the society and then re-incorporated into the processes of reflection and consciousness-raising. Hence, CALx factors will provide the background of the model.

Finally, it is important to mention here that this model is not bilingual in nature as it does not propagate the use of English as a medium of instruction. It does, however, encourage the teaching and learning of English as the language of English literature and global communication, preserving the mother tongue and the local culture and heritage.

6.6.2 The theoretical contribution to this thesis: The New Critical Teacher-Centered Reform Model

This New Critical Teacher-Centered Reform model provides the theoretical contribution of this thesis. This model is less top-down because it illustrates that the success of educational reform in this context hinges on bottom-up input throughout all the reform stages by empowering teachers. In fact, bottom-up realities are important to understanding educational change and a theory that encompasses complexity seeks to understand the connections between these realities, which in turn affect the nature of the changes taking place. Lighthall (1973 in Fullan (2007, p. 108-109) acknowledges that reform is “a process of coming to grips with the multiple realities of people, who are the main participants in implementing change.” Reform does not sufficiently highlight the fact that teachers must be won over. Reform programmes that have managed to train their staff to deal with multiple realities have proven to be the most successful. An example of this was the educational reform initiative of the Chicago district public schools. The staff of the 550 schools involved in the reform project was encouraged to share their different perspectives and this synergy enabled all participants to be better prepared in facing the complex scenarios that unfolded.

This new model incorporates CALx factors at all levels. In fact, it acknowledges the presence of ideology in educational reform and the significance of the social and political influences on changes in pedagogy, curriculum and language and automatically incorporates CALx factors such as linguistic imperialism and globalisation in the model. This model also incorporates two additional key critical components. One is the notion of critical reflection, as described by Chouriakli and Fairclough (2005) and Pennycook (2001) and the other is Tollefson’s (2002) notion of consciousness-raising. Therefore, this new model highlights the multiple realities operating amongst the stakeholders and shows how raised consciousness and reflection further stimulate reform on all levels, especially among teachers working in areas of curriculum, pedagogy and English language teaching.

The model shows that a circular process of critical reflection can influence policy-makers to maintain their level of commitment and investment in the reform by further empowering the teachers and the reform programme itself. Fullan (2003) states that such feedback is a natural consequence of change and that “once a system starts to work intensively on an issue it can amplify, and feedback on itself” (p. 91). This component

must be included in the newly adapted model because, as Fullan (2003) comments, it can “create a fundamental transformation in the learning cultures of schools and the teaching profession itself” (p. 92).

This new model also includes the effect of constant consciousness-raising as described by Pennycook (2001) “to inform our thinking about social structure, knowledge, politics, pedagogy, practice, the individual, or language...which should constantly be a questioning critical theory-a restive problematization of the given – a critical theory that takes knowledge and its production as part of its critical exploration...” (p. 25-26). This form of awareness means that reform can be revolutionary in encouraging greater questioning that goes “beyond ...oppression, inequality, imperialism, racism, ideology...” Tollefson (2002) also takes this notion of consciousness-raising in education further by looking at policy-making and “public debates about policies [and] “the links between language policies and inequalities of class, region, and ethnicity/nationality” (p. 5) which are also factors of CALx. He emphasizes that a critical perspective is important to have because it “aggressively investigates how language policies affect the lives of individuals and groups who often have little influence over the policy making process” (Tollefson, 2002, p. 4). Hence, this model incorporates the parents and the community raising their level of awareness.

Therefore, this newly developed model taken from that of Fullan’s theoretical model is built on the premise that CALx factors make up the background of this study’s theoretical model. This model also recognises that the only way to raise consciousness and promote self-reflection is to accept that language and education are influenced by social, political and economic factors and therefore can neither be neutral nor ignored. On the contrary, CALx factors such as language marginalisation, culture and knowledge need to be acknowledged and become the basis of the theoretical models drawn for any educational change, in particular the one drawn for this study.

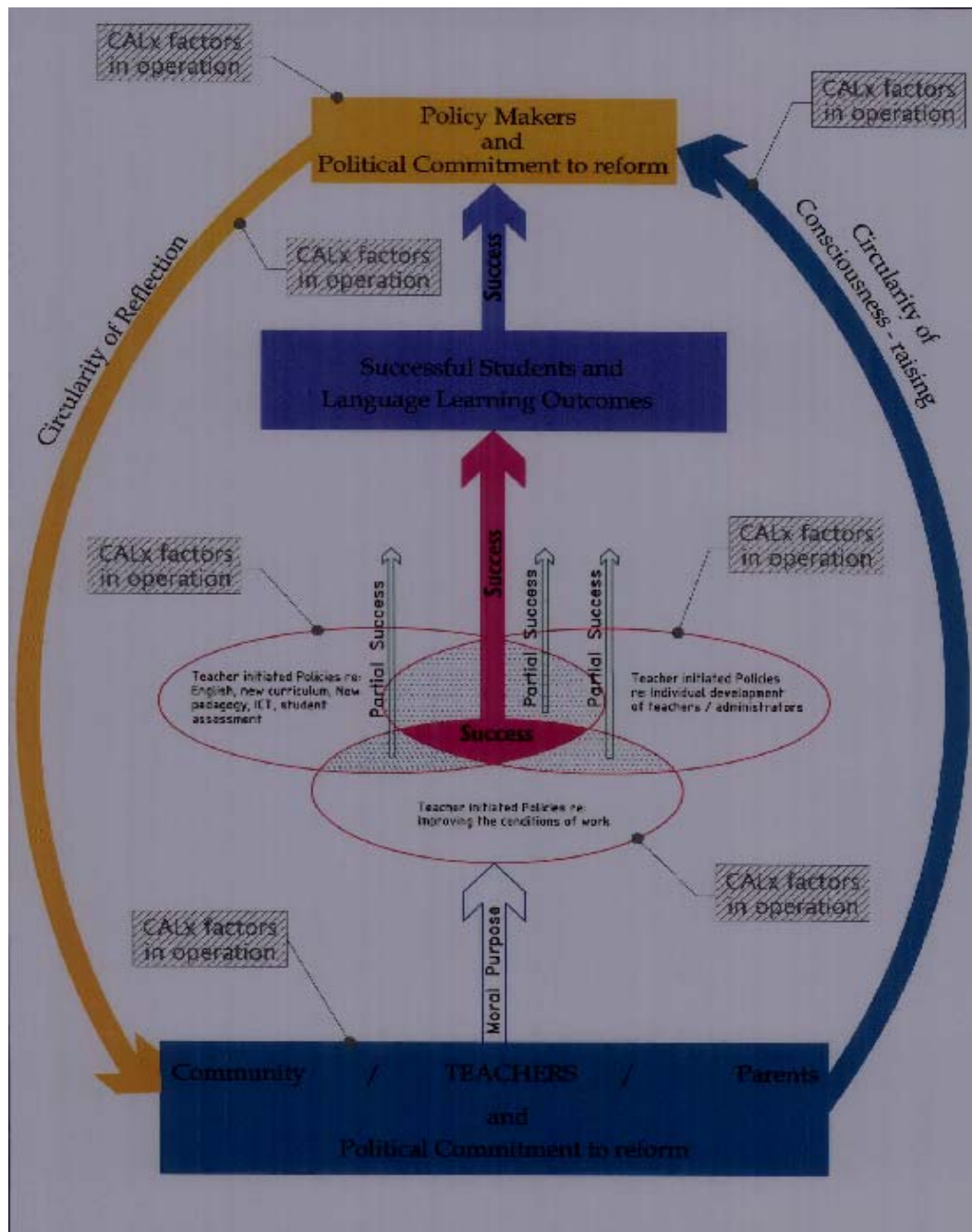


Figure 4 New Critical Teacher-Centered Reform Model adapted from Fullan's model of educational transformation

6.7 Critical conclusions

The Emirati education system was not competitive compared with the systems in the Western world and thus, some type of reform was necessary. Dr Rafik Makki (2010) was quoted in *Gulf News.com* as saying, “measuring our education system was somewhat disappointing. We found that nine of 10 of our students are not ready for higher education, and required a bridging programme” (El Shamma, 2010). These facts highlighted the need to improve the education system and implement a large-scale reform programme. However, a simplistic understanding of the situation and simplistic solutions are not realistic.

6.7.1 Economic/business aspect of reform

In a critical study such as this one, one would seriously question the reasons behind a large scale foreign based reform project and its implications on the Emirati society and especially its teachers. “Consumerism and consumption have become the core of many, if not most societies,” writes Shah, (2011, May 7) on *The Global Issues* website. In fact, Furedi (2011) comments that “marketisation has become a reality” that has affected both academics and students who “have to live with it” (p.1).

Policy –driven ‘marketisation’ is, Furedi (2011) explains, “a highly controlled quasi-market that forces institutions to compete against one another for resources and funding” (p. 1). What is disturbing about the whole concept of consumerism and marketisation in education is that a perfectly good relationship between academics and students is turned into a ‘service provider and customer model’. The UAE is no exception. It is an example of a country that thrives on consumption and consumerism. In this study’s context, the UAE government needs the ‘reform’ product in order to improve the prospects of its future generations. On the other hand, we have the ‘West’ or ‘foreign’ countries selling or marketing their product, ‘their version of reform’ because the Emiratis are willing to buy it. So in other words, just as in business, education reform is sold to the highest bidder. It is important to mention here the ideological factor of marketisation. Marketisation of education is, according to Furedi (2011), as much an economic phenomenon as it is a political/ideological process; he continues and explains that “governments often promote clearly defined political

policies” (p. 2) through the ‘medium of marketisation’. EMI as marketisation concept has served both political and economic purposes.

In light of the discovery of crude oil in the region, we have seen the growth of the marketisation of education *in* ‘English’. Karmani (2005) “contends that the successful expansion of English in this [Gulf] region is to a large degree contingent upon pacifying the political force of “Islam” (p. 87). An article in *The Washington Post* boldly reported that students in the oil-rich state of Qatar were “learning less Islam and more English” Glasser, 2003, A20). There may be some truth in this notion as most students in the region seem to have forgotten the significance of Arabic in education and are eager to master the English language in order to achieve better economic status.

Consumerism, therefore, has also influenced the students and according to an article in *The National* by Swan (2011) teenagers “continue overwhelmingly to sign up for courses in business” (p. 1) according to Dr. Kazim, the managing director of Dubai International Academic City. This attitude towards consumerism is equally encouraged by the leaders of the country as part of the Abu Dhabi Vision 2030. The Oxford Business Group in MENAFN.Com (03/2009) reports this vision by stating that “through education, training and skills developments Abu Dhabi will develop and continue to attract a highly skilled and productive workforce to increase its economic might.”

Even the reform itself uses many businesses-like terms such as the Key Performance Indicators (KPIs) mentioned in chapter 2. The KPIs are the benchmarks that measure compliance of schools. Although this is an efficient way to ensure that reform is taking place in schools, it increases paperwork for teachers, whose primary job is supposed to be teaching and educating.

6.7.2 Social aspect of reform

Critical awareness comes, according to Cohen et al (2000) through a transformation of “society and individuals to social democracy” (p. 28). This study has, in an indirect way, raised the consciousness of its participants who have started questioning their superiors and the élites that run the country. For example, the study encouraged teachers to question the behaviour of those in charge of the reform programme. The senior official’s behaviour towards Jameela, for example, was autocratic and non –democratic

and the study seemed to give Jameela the voice to question his motives. In other words, this study aims to empower teachers so that, in turn, they empower future generations.

This study has also brought attention to teachers' voices regarding the purpose of EMI in the Abu Dhabi education system. This study illustrated the possible ramifications of EMI on the local psyche but it has not fully succeeded in raising the awareness of all its participants. There are still teachers who have bought into the idea of EMI as an 'excellent' initiative. Nevertheless most teachers in the study express resistance to the use of English in the classroom and certain quotes such as 'why don't you speak Arabic in your country?' and 'why should we bring ...from America, Canada...' imply certain feelings of resentment that the Emirati teachers feel towards the 'foreigners' who are mostly from 'English speaking' countries. In fact, Karmani (2010) warns us that Arabic-medium students tend to have a relatively less favourable view of EMI. In his study, students showed great frustration towards the imposition of English; "it is a matter of great frustration that individual livelihoods are contingent on their proficiency and subsequent performance in English"(p. 110). Karmani (2010) suggests that "in light of the geopolitical concerns about national and regional stability, such levels of frustration towards English- language policies serve to antagonize large sections of the young Arab population" (p. 110). I believe similar feelings of resentment that have surfaced in this study show that the teachers have developed a certain degree of critical awareness and this study has somehow helped in voicing their views.

6.7.3 Cultural aspect of reform

As mentioned previously, this study has shown that some teachers believe that EMI is an 'excellent' opportunity to develop and improve the new generation. Some believe that its pedagogical role will not reduce the influence of Arabic and as Al Khaili states, "Arabic language and heritage will remain an important part of the public education system in Abu Dhabi." However, I believe that Arabic will be difficult to protect despite the argument expressed by the Director of ADEC who states that "while mathematics and science will be taught in English language, Arabic language, history, and Islamic studies will be taught by native Arabic speakers."

However, it is difficult to imagine that Emirati culture will not be compromised primarily because of the power of English which has proven to be quite influential

globally. In addition, the argument that the ‘culture and heritage’ aspect of the new curriculum is strong enough to sustain the identity of the Emirati students is questionable because, there are too many foreign forces, such as recruited native English speaking teachers and consultants, an English curriculum and textbooks, and a change of the status quo. These forces when combined undermine conformity.

6.7.4 Political aspect of reform

This thesis has also mentioned the West’s vested interest in the political stability of the Middle East, North Africa and Asia. Education appears to have become an important means of achieving moderate political thinking and the local politics in the UAE seems to be leaning towards such agendas. On several occasions, teachers in this study question the presence of ‘Westerners’ in the Abu Dhabi education. In fact, as a result of ‘Western’ political aspirations, we have seen an increased number of educational reforms being pushed towards Muslim-majority countries after the wake of September 11, 2001.

Karmani (2010) explains that there seems to be a consensus that “the role of schools and universities in the Arab-Muslim world” had become inherently dysfunctional and “that they needed to be ‘corrected’ in the interests of maintaining local, regional and global security” (p. 109). The reform projects in the Middle East including the Gulf region, as well as parts of Africa, and Asia have been the target of such changes. The US reaction to political unrest in Pakistan, for example, or political changes in South Africa, is an indicator of their position. The West, spearheaded by the US and its allies, encourages ‘foreign conceived’ educational reform, in order to generate a new generation of individuals with relatively moderate attitudes towards Western political policies, a strategy in progress in the Middle East and North African (MENA) countries as we speak. Levin (2009) believes that “politics determine, for better or worse, the reforms that are adopted and the ways in which they are implemented” (p. 160). This study has raised the awareness of some teachers and hopefully future critical studies will be more successful in raising teacher consciousness and in helping Arabic/Emirati teachers become more aware of both hidden and overt foreign influences that are produced and reproduced through education.

In conclusion, the potential of a successful educational reform in practice is at stake, because there are still fundamental elements that are missing in the Abu Dhabi education reform programme. The reform is still a top-down project within which teachers are marginalised and EMI is still imposed. However, there seems to be a relative critical awareness among the participants of this study towards hidden political and economic agendas which is one of the main goals of this critical thesis.

The Abu Dhabi education reform is a large-scale reform project that has the potential to succeed although, given the critical implications and recommendations provided in this conclusive chapter, there are many aspects that are likely to hinder its successful implementation. Clark (2010) quotes Gregg B. Jackson, an Emeritus historian of education at George Washington University that, “Ambitious changes, once initiated, are more likely to succeed than modest ones, although they take more time and effort” (p. 23).

6.8 My journey through the thesis and its future scope

My journey has been one of self-discovery. From the start, I thought I was privileged to be in a position to make a difference. I was going to report the discrepancies that I saw at the grassroots level in an educational reform system that seemed imbalanced, biased towards foreign academic and cultural values. What I discovered along my journey was shocking! I had to critically reflect on my own attitude towards my research participants, and rid myself of the ‘foreign’ perspective that I had naively brought along into my research.

I had to look within and realise the extent to which I treated teachers as ‘the other’. The attitude was not intentional, but it was there. The eye opener was when I joined the teachers on a friendly gathering. The ladies were very happy to socialise with each other. The topic of conversation varied from fashion and family matters to more sophisticated subjects about education, schooling, equality and certain societal limitations. I was in a position to understand their conversations, though could not communicate with them. For the first time, I appreciated the extent of these teachers’ social and intellectual wisdom. Somehow, I saw them in a different light. My first impressions observing the teachers were of ‘students’ who regressed to teenage behaviour in their ESL classroom or of teachers who assumed the role of helpless

victims of reform in their work environment. It was suddenly clear that our conversations were limiting by virtue of my interview questions and their limited English.

According to the Social and Human Resources Education document (General Secretariat Executive Council Emirate of Abu Dhabi, 2011), the goals of reform are clear. The policy drivers are well identified. The strategy to deliver and administer education is based on sound components. The document is logical and convincing. However, at the grassroots level, the reality is totally the opposite: The goals of reform are vague. Teachers are unaccepting of the major policy drivers and quite resistant and reluctant to most strategies used to foster reform. Hence the primary reason of my quest to explore the discrepancies between reform on paper and reform in practice. I was among teachers who were confused, reluctant to change, resistant to change, angry at change and tired and disappointed by the system. The teachers were not in an emotional position to implement change. I had to do something. I decided to explore the teachers' perspective of reform to find some plausible answers to the chaos at hand.

The journey to write the thesis was long yet fruitful. There were early morning reading sessions before work and very late nights after taking care of family needs. The weekends were dedicated to writing drafts on the computer while everyone else was at the beach or camping. Nevertheless, the journey was worth it. The more I read about educational reform and EMI issues, the more I became critically aware of the extent of the political gains involved in such policies. In their paper on Rethinking School Reform, Henig and Stone (2008) define reform as "an intricate form of politics," while they quote an education fund executive who simply says, "This is not rocket science. It's political science!" (p. 214). They explain that if we were all to take the task of implementing reform on our shoulders with as much "openness to politics and a full appreciation of how complex the move is from policy initiation to implementation... characterized by multiple challenges and no scarcity of 'wicked issues'" (Henig and Stone, 2008, p. 214), than we would be able to attain possible sustainability.

As I approach the end of my thesis, I am better aware of the needs of the teachers in the Abu Dhabi education reform. I can see that though change may be needed in some areas such as pedagogy, EMI is not the best approach to the education change imposed in Abu Dhabi. There are very clear indications that many complexities including teacher

emotional needs are not being considered as an important part of reform, nor are they addressed later when they appear in the process of change. However, the most urgent point regarding this reform project is the great potential for harm if the EMI aspect is not closely monitored. There are signs of 'bilingualism,' English/Arabic bilingual teaching, in some recent reform implementations in the primary schools; however, in practice there is an imbalance. Student preference seems to be heavily leaning towards English.

Finally, I believe that there is further need to investigate the Abu Dhabi education reform. It would be greatly beneficial to follow the progress of the reform through its 10 year strategic plan in order to evaluate its sustainability, to check the extent of its success and to better inform future reform projects both in the Arab world and the world at large.

Appendix A Certificate of Ethical Research Approval

STUDENT HIGHER-LEVEL RESEARCH



School of Education and Lifelong Learning

Certificate of ethical research approval

STUDENT RESEARCH/FIELDWORK/CASEWORK AND DISSERTATION/THESIS

You will need to complete this certificate when you undertake a piece of higher-level research (e.g. EdD level).

To activate this certificate you need to first sign it yourself, then have it signed by your supervisor and by the Chair of the School's Ethics Committee.

For further information on ethical educational research access the guidelines on the BERA web site: <http://www.bera.ac.uk/publications/guides.php> and view the School's statement in your handbooks.

READ THIS FORM CAREFULLY AND THEN COMPLETE IT ON YOUR COMPUTER (the form will expand to contain the text you enter).
DO NOT COMPLETE BY HAND

Your name: NINA LEON SANASSIAN

Your student no: 550031097

Degree/Programme of Study: EdD TESOL

Project Supervisor(s):

Your email address: nls201@exeter.ac.uk / nina.sanassian@gmail.com

Tel: + 971 55 413 0501

Title of your project:

A critical assessment of female middle school mathematics and science teachers' perspectives of the Abu Dhabi education reform programme and the use of English as a medium of instruction

Brief description of your research project:

The rationale of this critical study is to better understand the effects of the Abu Dhabi education reform initiative on the female teachers of a middle school outside the city of Abu Dhabi.

It is hoped that a critical investigation such as this will explain the gap between reform on paper and reform in practice from the female teachers' perspective. This study will consider the teachers' attitudes towards the Abu Dhabi education reform programme. The study will also consider issues related to top-down reform, teacher marginalisation and English as a medium of instruction.

Chair of the School's Ethics Committee
last updated: September 2007

MS

Give details of the participants in this research (giving ages of any children and/or young people involved):

The participants of this research project will be mainly the female teachers of an Abu Dhabi public female middle school.

Give details regarding the ethical issues of informed consent, anonymity and confidentiality (with special reference to any children or those with special needs) a blank consent form can be downloaded from the SELL student access on-line documents:

Considering the sensitive nature of this critical study, the teachers will agree to participate in this study by giving verbal consent. They will be assured anonymity and confidentiality before the start of every single interview.

Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

Participants will be part of individual or group/pair semi-structured interviews and will be informally observed within the school premises, both inside and outside the classroom. Teachers will be promised anonymity and confidentiality so that no harm, detriment or unreasonable stress will come to them because of the data collection methods.

Give details of any other ethical issues which may arise from this project (e.g. secure storage of videos/recorded interviews/photos/completed questionnaires or special arrangements made for participants with special needs etc.):

The participants' names as well as any other identifiers will be withheld from public use. The interview tapes and all observation related data will be kept in a safe place.

Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):

To the best of my knowledge no ethical issues will result from this research.

This form should now be printed out, signed by you below and sent to your supervisor to sign. Your supervisor will forward this document to the School's Research Support Office for the Chair of the School's Ethics Committee to countersign. A unique approval reference will be added and this certificate will be returned to you to be included at the back of your thesis.

I hereby certify that I will abide by the details given above and that I undertake in my thesis to respect the dignity and privacy of those participating in this research.

I confirm that if my research should change radically, I will complete a further form.

Signed: Nina Saron date: July 31, 2008

N.B. You should not start the fieldwork part of the project until you have the signature of your supervisor

This project has been approved for the period: Sept 2008 until: Sept 2010

By (above mentioned supervisor's signature): Salah Ibrahim date: 30/08/2008

Chair of the School's Ethics Committee
last updated: September 2007

N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occurs a further form is completed.

SELL unique approval reference:..... 2 / 11 / 12 / 23

Signed: Salah Traiki date: 30/08/2008
Chair of the School's Ethics Committee

This form is available from

<http://www.education.wa.gov.au/education/ethics.php> then click on On-line documents.

Chair of the School's Ethics Committee
last updated: September 2007

MS

Appendix B Key Performance Indicators

1.0%	28	Have required school modifications to improve learning environment been identified? Does the classroom provide a positive learning environment atmosphere?	Compliance	All Staff
1.0%	29	Has teacher development plan been created? (Course planning; ADEC curriculum understanding; level of English; etc.)	Percentage of positive answers to compliance questionnaire	SIP / HoDs
1.0%	30	Is there an Action Plan for teachers? Is performance improving?	Improvement against targets	SIP
4.0%	31	Is the quality of teaching improving the levels of achievements for students	Lesson quality, use of ICT, use of student performance to inform planning	All Depts
2.0%	32	Has teachers English performance improved?	IELTS Academic score improvements	ESL TA / teachers
1.0%	33	Have the teachers understood the student assessment plan and are they assessing adequately?	Compliance	All Depts
1.0%	34	Provider's staff been recruited by Sept 09? Has provider's staff been retained on Yr2 and Yr3?	Compliance and % retention	SIP
1.0%	35	Has the number of UAE national teachers/principals increased versus baseline?	Increased rate of UAE national teachers & principals/total teachers & principals	Admin
1.0%	36	A teacher assessment framework aligned to ADEC professional standards is set up?	Compliance	SIP
0.5%	37	Does the lesson planning include references to UAE heritage and culture and are students made aware of local and national events?	Percentage of positive answers to compliance questionnaire	All Depts

Abu Dhabi Education Council (2009)

Appendix C Interview Data

Teachers' Perspective of Abu Dhabi Reform
Summary of Teachers' Interview Set 1, 2, 3
AA- EDUCATIONAL REFORM

	AA.1) Definition of educational reform
Asia1	Nil
Asia2	if we want tatweer (reform), we need 'albiia'(environment), environment, we need big class we can move it, student can sit in group but there is place for walking... The curriculum must be not 'mehshi' (dense) not too much because student sometime must do some practice ...activity, sometime not know how to get this formula, now sometimes not answer the formula, no time from where this formula...mosh atkham (dense)...in some grade its(curriculum) nothing they teach nothing...
Asia3	About English, it's better, about English. That we use English in our... [so why have they put tatweer (reform) then, in your opinion?] just to use English...I think, that ADEC they think anything from outside from America Europe is better...what I am believe and what I am sure 'metakkad' (certain) ...this is our country, we know what we, how I can teach, we are Arabic, we are teach our student . I can teach I can I know what she know my student, what point know so I can learn her this way. Mathallan (for example) activities, last year, before you come, I also teach student in the TV that lesson about tooth, about our curriculum, [download stuff?] yes, they can bring it in DVD or CD, we can ... after we can see the lesson , we got also power point ...now the student ...just glue, cut put, cut put, what is the goal...now they don't think!
Bushra1	Tatweer (reform) must be in teachers, in curriculum, in students.
Clara1	Nil
Clara2	We realize that our children are a bit less in language because at the end every subject they start studying or higher studies in English...so we find that we are a bit late in starting English with them then when we start learning them English the way of learning was not the perfect way to help them to get quickly to the other students. So now by using tatweer (reform), 'aw' (or) by using their methods, maybe it will improve and our ways in the exams and our explaining of the scientific subjects I felt it was not completely right...it's like an old system it depends on making a child not using his mind just by...training or answering the same question hundred times so he can know it not just by inspection or getting it. So this way new methods of learning maybe will help us get... yeah,
Daria1	I believe it [reform], but I have some notes about this...about the exam...exam the first semester when we come to put it in the computer the student who get zero from 60 we gave 25, how is this...25 marks , why? If you want to tatweer (reform) we must zero, zero...OK... We must uh, leave the real percent. ... I don't think it was [written] by a math teacher to see it...don't ask maths teachers...for science and for maths, yeah, ...for the three papers even for English, lots of papers and time for the child/student opening the paper and he got shocked that he have a boOK, not an exam [yeah, yeah]...tatweer (reform), in, in our... We must choose a very good person [to write the test you mean?] yes, to write the exam, to put the plan, to put the curriculum for grades, OK.
Daria2	This plan, Tatweer (reform), form KG 1, KG 2 grades 1,2,3 not from grades 9, 8 with English... it's very difficult for student maybe for teacher we prepare, more prepare , more prepare so we can we can learn it to student but it is very difficult because there is problem with language with students OK and with teacher there is a problem so we have two side with problem student and teacher but if we start from the small kids I think the problem just with teacher, teacher improve herself, her English...it's different .
Daria3	Nil
Ebtisam1	Tatweer (reform)(reform) not using computer or technology all the time, maybe you will need it, may be not...is how to teach in simplest way and give those main idea for student that ...it will help you
Ebtisam2	Nil
FalaK1	Nil
FalaK2	OK, it will start from a teacher, the teacher must have uh, some experience...[yes] like take help take some courses, change the resources, give another resources...[change or take]take another resources and take some, some another idea to assessment to do assessment to students...al manhaj yebgha mosh mehshi'(curriculum not overwhelming)...Each class must have resources, not some for all...tatweer (reform) al manhaj (curriculum), tatweer (reform)oh oo tahseeno (developing and improving the curriculum)...
Falak3	Educational reform has some points about the students, about curriculum uh, about the resources uh, maybe I hope the education be uh, when is education students listening more than writing use the computer uh,... uh, to understand some lessons... uh,...maybe in the school, the building of school uh, be better than now... uh, maybe the time of learning uh, longer than [what do you mean by time?] time of lesson, not 7 periods , each one has 45 students can't do everything in this time...very important to help the student to discover the formula, discover a lot of thing in curriculum by hands , by using hands...I give them the lesson easy on the table no...they must work [explore] yes... and very important is the teacher take the proves, if the teacher develop the student develop... like you do with us...haha...
Ghalya1	Nil
Ghalya2	Nil
Hala1	Same...tatweer (reform) must be in teachers in curriculum in student.
Hala2	Always, always training uh, uh, always again, again ...revise, revise, revise...for student and for teacher...writing always word always uh., solving...exercises...uh, eh important and uh, we every time, tall time, uh., test all time, uh., every week uh, test, small test [quiz] quiz, quiz, am study homework, anything outside, no all inside class, uh, uh, outside class, think... 'alaasr al zhni , shoo ismo' (information era, what's it called?) small no small order...yaani (that is) (that is) for easy to difficult...yaani (that is) (that is) small, small to big yaani (that is) 'taaweed altalibat' (that is practice)practice tall quiz... problem, yes ... problem ...
Jamila1	Tatweer (reform) is when we use a new , a new methods, and a new technologic uh, uh, a new what? A new places ...What, classes room, classes room... [How about teaching?] Teaching, yeah, and about teaching, zein (OK), when all of this we have it in my school or our school, inshAllah , tatweer (reform), what mean tatweer (reform) in English ? [Reform] reform, yeah, we will see that reform in my school or in our school or another school ...

Con't

	AA.1) Definition of educational reform
Jamila2	Nehna, meshkela(our problem)...you come from[Canada]. B come from[America]. O come from [England]many country, she loOK the tatweer (reform) like this, O loOK like this...but here maybe we have more what we call tatweer (reform)...we have, they don't maybe in their country like this... What we think yaani (that is) we all social? We Arabic social? [Friendly?] if you come from more country different thing from her country and this country...ask me why ask people its not live in this country? [Who put tatweer (reform), you should ask] where, where I go on road? [ha!ha!] You tell me! Yaani (that is), what can I do? [haha]Only we talk , we have problem, we have problem...but we talk with who?[Can't you go to the Ministry and talk to ...?] uh,...Mohammed Tabashe want tatweer (reform), Mohammed bin Zaid want tatweer (reform), OK, they want tatweer (reform)... but Mohammed Tabashe think something...OK, Mohammed bin Zaid think something, OK ... OK which one the best? I don't know ... he want what he uh, think that is good for all education to be tatweer (reform), and Mohammed Bin Zaid like ... but different thing...[so what happens?] I don't know, like this...we have in United Arab Emirate many person learn college, university in English university not in this country, British, America, Canada so my building have person it can do to tatweer (reform)...why they bring yaani (that is) ...[foreigners, people from outside?], yeah, yes to think , to think for my country ...this person he live in my country , he know what's happen in this area... I think that's ... I tell you ...talk is [cheap] yes, talk is cheap...but we want action, we want action...now more time go...is passed zein baaadein (so what happens next?)...after? Tatweer (reform)!?! I think, I think ... If senior officials visit company in all school have company they will no be [happy, they will be upset?] yes, because we don't have any tatweer (reform)... Only talk...only bring, bring person from more mashaAllah ...country...we know more person from...that's socially, socially? To interview...no, not interview...to know who's Ms B, who's Ms N...like this.... Only that but for tatweer (reform)...ma fi shi saraha (to be honest, there is nothing), sorry, yaani (that is), ma fi she bisaraha...., [ma fi tatweer? (reform)] Abadan wala (absolutely not, (not even) one point... I don't see any tatweer (reform) why they don't uuh...meeting with few teacher in all uh,eh school have tatweer (reform)...the company why ? To ask him you see tatweer (reform) or you cannot see tatweer (reform)? Why?
Kalmah1	Improve... I don't know... 'bas' eh(only), until now I didn't see any uh,...tatweer (reform) that we can feel it... There is a little bit, but ... [Can you give me examples of little bits?]....Maybe because we are now using little bit uh, spelling uh, English, and words in English that can give us and the student some words to add to our information, this is one of them ...also the curriculum it's become short this is one of them...but there is nothing we can see or can feel it on the student.
Kalmah2	I think, tatweer (reform), the person can become or have high grade in everything, about the student, uh, they can take more information, the information they can store it not only for study, next year they forget as now we study...and I think they have many things to learn, not only about education, maybe they have something in computer, because now everything with computer. Also about the English, now everywhere you go you need the English. Also here, in our country. I think there's good idea, for tatweer (reform), they have to think about everything uh, to learn, about subject, about something for the life, about uh, learning to help them in future when they will go to university or college.
Lamees1	I believe that [there should be tatweer (reform)...but here, no reform! [Why?] (silence)
Lamees2	Tatweer (reform), ahhh, wallahi ya N (in Allah's name, I mean)... I think uh,... an activity, new activities maybe in the school, I think there is ...I think in the school and in class...and uh,...in the classroom, I think there is a new activity for the girl, maybe the girl make experiment in a group with uh, the teacher...maybe there is a new data show and uh,h explain about what want... but all this lost in the past...all of teacher make it in the past, I think,

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	AA.2) Top-down
Asia1	Nil
Asia2	Always... do this, do that...why not explain?
Asia3	They didn't come to see how we learn teaching, what we can use , what we cannot use...
Bushra1	Nil
Clara1	Nil
Clara2	Yeah, before tatweer (reform), they called us asked us to improve ourselves in English and in using computers so we toOK our ICDL. So even if they didn't get the companies or change it immediate, they know that we are weak in English and computers.
Daria1	Nil
Daria2	Nil
Daria3	No, no, no, they come and here new curriculum, come and take this, another method, take this, learn like this...
Ebtisam2	Nil
Ebtisam1	Nil
FalaK1	Nil
FalaK2	Nil
Falak3	Nil
Ghalya1	Nil
Ghalya2	Nil
Hala1	Nil
Hala2	Nil
Jamila1	I have opinion, but who listen to me, who? (Laughs) my opinion... I think when we go meeting for interview...zeyn (OK)... talk about the company, they will come your school whatever...from that last time , I said ... I said when you begin from KG that's good but now it's not practical...not like this straight...that's not right... so ...you know what's the last man...Omar Shams...[you met with him? All of you?]....yeeees, yes, [this is before we came], he talk about the company, and what change [will happen]...Aiwa (yes)...will happen, when I, when I talk for the good opinion , he said that ...(laughs)...that's not good sentence when you give me like this. What I said? Who stop with me? B. and M., OK, all of them say heard what I said with him... I told why you don't begin only KG? Step by step not...uh, very difficult, not regular? [Right]...and so M and B ask me what you say? I say you don't hear what I say, not wrong for you...what? ... Talk about why? ... He ....yaani (that is), he ...say that ....maybe he don't have eh...he don't have...uh, [The answer?] Aiwa (yes)... answer...so clever... [so what did he say? Repeat please because I find it very interesting] ...please don't say like this...[is that what he said? Don't say like that?] ...all in lab, teacher ...so... [He didn't explain...himself] because he said I don't have time only question 1, 2, 3, 4, 5 (claps) go yalla bye bye...everytime he talk he like this...I am busy, I am busy... why? Because he don't have answer for each question...aaaakh ya rabbi (oh my God!) ...zein (OK)... yes habibi...[that's very interesting it means that he did not give you a chance to, listen to you he didn't think it was important enough,] yes, he don't give me answer[logical] yes, yes logical .
Jamila2	Nil
Kalmah1	Nil
Kalmah2	Nil
Lamees1	Nil
Lamees2	Nil

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	AA.3) Marginalizing teacher values
Asia 1	Problem is, last year when you come, I didn't know if you know what we know, I think you must know what teachers would know and you start from what we don't know ...some of the things you make it , we already know... some things you want from us , like meeting after curriculum ...how we talk to students, not say student 'shut up', not take the student outside...we know all this things, we do it all, uh, but you talk with us ...what you/they think us ... we come from where? ...you angry?...sometime we want like last year, you come to our class see what we in class ...than you make it some meeting with us, tell us what you want ,[needs analysis]...what we know and what we want...
Asia2	Nil
Asia3	Ana zaalanah yaani, enno (I'm upset, that is, because) not very sad, but before the first year , you must come and visit us to our class you can see what we know then make you plan, what you want from us to improve, now you start from the zero and we know everything they said ... that what you want from us , we know it that , they are ... everything you want from us make a file, just a file, to you anybody come to see the file but really our student? They didn't come to see how we learn teaching, what we can use, what we cannot use...and tell you do us ...you can't what you ask without what we have what ...I think you uh, come and start from the beginning, from library, from the board, what we can write ...the thing we know, how we divide the board, how we write the name, the worksheet...
Bushra1	Nil
Clara1	Nil
Clara2	Nil
Daria1	Nil
Daria2	Nil
Daria3	Nil
Ebtisam2	Nil
Ebtisam1	Nil
Falak1	Nil
Falak2	Nil
Falak3	Nil
Ghalya1	Nil
Ghalya2	Nil
Hala1	Nil
Hala2	Nil
Jamila1	Habibi(dear), you said about the new teach, zein (OK) ... yaani (that is) I am teach at ... about 12 years ... I help myself, I help myself...ey ... new methods...yaani (that is)... mathallan(for example), the last year you gave me how can revision about [games] yes, games that's OK, but if I don't have time...first I have to finish my curriculum, then to ... methods OK when you give game methods OK, very nice, if I give one period, the other period I cannot give it, only try for one only, to see what can happen...ma fi(there's no) general [thoughts about change] ...positive or negative...everything..hatta(even)..if you have the good project it must be [have] negative and positive...if I change this ...my students how to think , that's good , maybe, when they, they grow up they will ask herself, ha! Because my teacher that...and then [they will start] asking questions answer them.
Jamila2	Always they think when we bring different person from different country; it will be better ['they' meaning the government?] I don't know... that's not my mind...opinion ...yaani (that is)... oo baaden(and then what?) ...more money from Emirates..inshAlla h (God willing) will be finished... bring, bring, bring...hatta...iktisaad (economy) Lubna Qasimi, I think it's bad uh, strategy... [Wow, why?] Why? Shoo (what do you mean why?) Why? More student, boy and girl finish college... they don't have job ...OK, why bring more this? They will come half wallah (really) job ... and local person don't have job... haram walla more haram [haram] haram walla(it is sinful/unacceptable)...yaani (that is), fi translator(we have translator) ... we don't all person in United Arab Emirates cannot translate? We have more student, OK, specialty English, or teacher English ...why don't they bring this? Who will tell me? [Answer] who will answer? [The government.] What government? What government?! ... agoolek ...sadghini (let me tell you...believe me), the ... don't know because busy... Haram (it is a pity) because this person coming and bringing to make change to have tatweer (reform) from outside? [You mean from outside dreaming different dreams from the person inside?] Yes...What can we do? I think they don't have the right strategy to make tatweer (reform), to make change...
Kalmah1	Nil
Kalmah2	Nil
Lamees1	Nil
Lamees2	Nil

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	AA.4) Marginalizing teacher context
Asia1	We need big class student can move, and sit in group ...there is place for teacher waking ...
Asia2	Now, there's no time for us to do anything when there is no anybody come... ADEC we must give us one projector, one data show...aala fekra, (by the way) can for the student before class for grade 9, fi intimaah (there is belonging), the student more [belonging], they know this class for our... we all like family work together all... now... I think they did find a place for us...there is no time for us to sit together ... Before there's more time...we talking about the curriculum, what we do, what we learn [teach], we know what Hala, what she learn... now, everything... me/ we have a meeting , uh, work, we want to finish the homework, we want to finish the weekly plan, we want to teach what we do in this lesson... what I do in this lesson!
Asia3	Nil
Bushra1	Yeah, we have desk to sit on, and yaani (that is)(I mean), bisaraha(the truth) , even we share information we share papers when we have our desks and talk about all lesson...we have a café there, there's no yaaani (that is) educational environment no place ...we used to have this room...it was a much bigger, and we all have our desks... there was room in this room and working and talking...yaani (that is)(that is), before when we have our own desk our own room there is educational environment a lot of stuff I take it from 'Asia' mathalan (for example) helps Ebtisam, with Falak. Mathallan (for example) help me with other stuff, yaani (that is) we cooperated each other ... but now all of us have their own room... Also, give a student a chance to bring stuff in their bag but we don't know about it, because they change from place to place... it's not an official place for them and they expecting someone to see what they have...[just for the staffroom...why didn't you buy desks rather than couches?] ha/ha! OK because they forbid us...[turns around and cynically asks her colleague], "she's asking why didn't you buy desks in place of couches"...All this... taking us uh,... to the stone ages ...
Clara1	Nil
Clara2	Now each school sometimes we ask each other, maths teacher or English teacher or science, we ask each other. We cannot get information from each other [other school teachers?] Yes, because everyone have a separate, uh, , subject or separate paragraph ... before we used to be all working together as a one group...for tests , for the way to explain, for... [All? Like all public schools?] because in each school there is a supervisor, but they are not connected , supervisors are not connected I think, [aha], so everyone, I am in chapter 4 , my friend in chapter 5 in another school... so we cannot , make an information , to work together, yaani (that is), make information or prepare work together or [with other schools] because we go together in the same day and the same week, week one we have to find from this week two we have to finish from this...it's a start...after maybe will be more arrange , and will be more connected...yaani (that is)(that is) if I transfer my daughter , or one of my students from one school to other school, he needs time to catch up with the others, [oh, OK] and they are in the same class.
Daria1	Nil
Daria2	We need uh, data show to help us in uh, to show the subject to children, OK? we need more good materials and resources.
Daria3	Nil
Ebtisam2	Nil
Ebtisam1	Mafi makan (no room), there's no place...they say your desks must be in your class!
Falak1	Nil
Falak2	Nil
Falak3	Nil
Ghalya1	Nil
Ghalya2	Nil
Hala1	Nil
Hala2	Nil
Jamila1	I don't see a count, we cannot touch...yaaani (that is) no computer in my classroom, OK, data [projector] more time have problem how can, how can we use another technologic? We only have project sometime, lights is OK, is not OK ... overhead to see, sometimes not work, yaani (that is), where tatweer (reform)? OK, when we say tatweer (reform) for all teacher , we needed to know what's the new...OK what's the new? [What do you think new is?] a new methods, because this... uh,... this student at this time not like student like the last time, yaani (that is), more ...last year...last...before ten year...hatta (even) before 5 year... we have different , her mind is different uh,, what she see or what they see... we want to work ... but if you want tatweer (reform)...this person should be comfortable and health... every time tired it and we cannot absent ...its necessary we cannot absent ,if I am tired it should be come...what tatweer (reform!)...or to make give all this time...to think about tatweer (reform)...busy, busy, busy how can we think?
Jamila2	[Before] ...Every week one day, every week we go have worksheet [workshop], yeah workshop, every day one day in four week...yaani (that is) alheen (now), ADEC said for the new curriculum we don't have all suit experience [suitable experience] , yeah, zein (OK?), if me science teacher , what uh, I learn my student , only ... same, same, same...that's not enough, we must , aw (or), it should be given experiment and all student should be more work [with their hands] work hands ... old curriculum mashAllah (God bless) more experiment, that's good, but we don't have time...shefti (Can you see?), now we have time bus without experiment yaani (that is) what I see , I see this I think only this company they don't have strategy, they without strategy aslant (in reality), [this company] yes , if they have, we don't have any tatweer [reform], we don't have reform...tatweer (reform) what problem for my personal? They want tatweer (reform) that's good but yes I have some problem for me, zein (OK) like what? Like I want learn English, we don't have time, all time work OK? I don't have time for me to learn, my health, it will be yaani (that is) not good I am now , I am now old, older I am older so OK, uh, what we do the company for her for their think your job or work it's not uh yaaani, model, it's not model...I don't have time, we want to learn, uh, learn in y home , with consultant with some class have would be have covered [cover classes] maybe sometime I want to , to take more period to [do what?] to finish something with my student, or to do yaani (that is), extra for my student, where have we time, mafi time bisaraha (there is no time!)...we come here, for example , we come for you, that's good for me...negative positive, more time I work more time...like my friends in another school, she don't work like me...

Con't

	AA.4) Marginalizing teacher context
Kalmah1	Nil
Kalmah2	Maybe they now is more decoration than before [ha! Ha!] ...but about everything ...there's nothing especially that I can see that is change or happen big change.
Lamees1	Nil
Lamees2	Nil

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	AA.5)Teacher perspectives on the old and the new system
Asia1	Before we use more computers...before we have a room up with data show...we take student up and explain to them, and now, there's no time for us to do anything when there is no anybody come... When the curriculum is Arabic, there is I think many information...now I think everything every grade material is not enough information... menhajna bel aarabi kan aqwa men English (our curriculum in Arabic was stronger than the English one) ... mosh atkham (not as packed)...in some grade it's nothing, they teach nothing...the levels...no levels, yaani (that is) all the curriculum in grade.... all similar...
Asia2	If it's for me, I teaching the same way, but before there is sometime...they want from us ...visits us must score better, must use technical...but if normally I teaching the same...[used computers before] more than now...they sometime we must use it not because we want use it but we must ...if [the principal]come, it's better to use it ...if supervisor come you start working...the ADEC don't want us to do the worksheet, in the beginning...we have word problem, it is fine we write in the board and the student write not uh,... in English ...worksheet .. why you do worksheet, the student must write it ... we think this curriculum make our student stop thinking, real stop thinking...maybe because it is the first time for this curriculum...bikhtisar(in short), ADEC, if want from our student no thinking, they do it, if they want from our student no thinking or stop her mind...they successful...dammar(destruction!)
Asia3	Before we are better than now...we divide the class into groups All we know something, how we can make website, how we can work in groups, how we make brochure, how can we make a group brochure, another group make website... Before we do stuff, we must put, we must write from beginning of this year what is the goal for us for this year. What we have the activity what we must do... not activity for national day, activity for math week not like that, we must learn to put in the end of the like maarad shooo yaani maarad (exhibition)...for all what we do and sometime parents come to school, each school we have a show first time we make like in the want to make like a ... like checkout for math teacher, before that we make ...something for our student , now there's nothing about it, now just we work cut and paste...not more. Before we work, project, anybody can come can see what we do what we make, you can come and see what we make. Now I think just photo and picture, something like that not . There is nothing ...nothing for thinking, for improving...nothing, I teach the same stuff lesson me, Bushra ,Clara and Hala and Falak... all the time the same lesson...Really until now there's a ...uh, big hole and what you want from us...between what we know , what we uh, can do, what we was doing, how we can teaching before and what you tell us to teach, and teaching method...they want from us just a worksheet. Now I think there stress, more stress about the lesson, we go for you, and meeting with consultant, meeting with you, we are more stress miss M. 'mouh metaga' cover, cover, cover there is no time for any work in my home, there's my children someone sick!
Bushra1	It is quite disappointing for us...when you talk about developing teaching here, when we start our year with this curriculum, with a lot of gaps, a lot of mistakes, it's quite disappointing for us... actually if they keep old curriculum and they just focus on uh, teaching ways ...mway abrak(much better)... better than changing the curriculum and we start from the zero. [Before] we know what student taking...and we know if we teach this one the student is supposed to know it ...but now we just ...we don't know what they tell us... this [resources] is a good one from [the consultant] she encourage us to use resources...no actually we agree with you...this is a problem, because ...yaani (that is), for you we should not use computer and use the student by hand and when supervisor come ask why student work by hand, must work with computer...it's make the class much easier and saving time[using computers] because the student just write the answer not copy the ...when we use computer it make our life much easier and save our time ... I just don't know why you insist to make student copy from boOK...We are disappointed about ...you think you are developing us, we think we are going back! And about this computer point and it's killing me and there is another point that in other schools, yaani (that is) they give them everything, plan, worksheet all... I think not change ...the same old one but not planned... and we must to have to learn English , we have to put weekly plans; of course I am not doing it! Ha! Ha!
Clara1	We are still using computers... just we need...[teaching] but not with well trained teachers ...before...now they are trained ...this is better...
Clara2	We are still using computers...just we need...only 20 % resistance to the new methods [oh?] less than 50 % they like to change to new methods but I think the big bar is the language more than other things but the methods itself its ... the same some of them should change in math and science...but there is a little bar which is the language. ..It[curriculum] is the same...sometimes it's less when we're teaching children in Arabic , we have more information in Arabic . Just now we are feeling [stress] because it's in English. Unfortunately we studied in university in English [yes] it was not very difficult, but when we came to teach, we returned in teaching Arabic, when we returned again to teach in English, so there was a gap. ...as a start maybe we have this feeling...but by more training and with practicing maybe we lose this feeling...for me, as a Maths teacher, I would like to give the subjects to the childrens so if they didn't use this thing that they have for this year, they can use it the next year or the year after, not just to teach them to pass this stage...[OK] because it's a subject ...before we teach them just to pass exams and I find them if you teach, just 10% will be left in their minds when they go to university but now we are trying rapidly to let them store something ...
Daria1	Tabbaan, menhajna bel aarabi kan aqwa men English (of course, our curriculum in Arabic was stronger than the English one.)
Daria2	Nil
Daria3	[We worked]in order...there is no meaning, no order, you know...we have more work now , without order and meaning. Education, that's what I mean ... There is no meaning in education. You start by zero....methods of education, it's before better ...The level of the student is dropped down. ...
Ebtisam1	Teaching before its better than... before, math department in the computer lab, the electric worksheet yaani (that is) see how eh...did many things... [But why don't you do them now?] because you ask us for something, yaani (that is) take yaani (that is) 'wagetnah'(time).

Con't

	AA.5)Teacher perspectives on the old and the new system
Ebtisam2	School is longer, now we finish 2:20...we work longer but the work, the project , the activity the teacher achievement uh, the math achievement, uh, the math club more before... before we had math Olympics, now we don't do that... [How do you see reform in a few years time?] Maybe over. After 20 years maybe they will ...you will reach to our level before [what you were], yes ... But if they studied before the area of the school... The teacher achievement, the school level, the teacher level, the student level , what we have they maybe improve they maybe put a plan they may put a nice boOK for each level ...Laaa(no), maybe I, uh, they thought that we are in the zero...the ...[before] , from the ministry very nice, just the letter in English and we teach it for the student in Arabic, you know in except of 'seen' (Arabic letter for 'x') we say 'x'(English)...just symbol...the words and the student uh... know for what ...I forget, student know why they study this and the exercise.
Falak1	Nil
Falak2	We see changes...yes, use what about we can catch it, [explore] yes, now we use in our class explore things to help student discover a lot of formula, a lot of idea in our curriculum before maybe no...yes... we use some ideas like help student to discover a lot of thing in our lesson, uh, we use practice, a lot of practice, we use a [manipulative] yes... to learn everything in the lesson...we do quiz... a lot of things we did it in our teaching...[now] yes...[even more than before tatweer (reform)?] yes, yes...we use more than we have now...[oh now you don't do ?] we do a lot of things but we want uh, develop ...be better than now...we want to be better than now... they simplify everything for us... We want student to ask about some difficult ideas in our lesson...but our students didn't ask any question about difficult idea in our lesson...we must give it to them...
Falak3	Yes... we use some ideas like help student to discover a lot of thing in our lesson, uh, we use practice, a lot of practice, we want to be better than now... [Students doing more independent work?] By teacher ...still not alone... they want their mind to work ...uh, whose help them...teacher, her parents...uh, uh...themselves...they want to use computer and uh, ...they must uh, yedawer or yebhath (search)...search about everything ...
Ghalya1	Tabban, menhajna bel aarabi kan aqwa men English (of course, our curriculum in Arabic was stronger than the English one)
Ghalya2	Before uh,... al mukh merratab, neshrah...naaref shoo nhadde(we knew what we were doing!)...sometimes explain and then delete [cancel]...Yaani (that is) when you come the first year everything change, we make weekly plan, worksheet, see where give the lesson, another boOK, everything the teacher make...more work ...we don't have boOK, we don't have worksheet , everything!
Hala1	Nil
Hala2	No... I think... no...almanhaj (curriculum)? Al talabah(the students)?...[teaching, teaching] before fi (there is/are)worksheet, fi 'adawat' (there were resources) fi (we had) computer...before... bassatoonah al hajar (they simplified everything) ...simple...they simplify everything for us... is good, good, good...[students doing more independent work?] ...medium... nus o nus (half-half)... wasatt(average)...yaani (that is) saab el maaloomat men wein taatiha (it is difficult, where do you get the information)...Islam ask us to search about everything to the last minute in our life, search everything...if you die you will stop...if you are in the life you must search about everything and know everything.
Jamila1	[Before I teach] like this, [same?] yeah same... how eh same but different game...work in group, give it like mathallan (for example)... give letter...[envelope]...to answer question for each groups...this group ...[yes] [this is how you used to do] yes, uh, another one I put information in paper the word [with a pen] they working group only one paper go to bring information, yaani (that is), change ...now I am ... I use ... yaani (that is) no new, nothing new, or methods to teach or what yaani (that is)...when , OK I love consultants, I love ..OK...but ...for your person very good but in work ...laaa(no), job no, I don't want you to help me, help for what? For what? How? How? Give me one, one eh...reason, not reason one methods to help...[that would help you], yeah, that would help me...yeah give how? What? You give me anything? [Have you told this to anyone?] uh...I said talk, talk only for myself, self...they help ... but don't do anything ... maybe we have now a beautiful boOK, beautiful colour but now all in school we not use; I told my student keep it your boOK in your home...because it is very heavy...and uh...and it's very difficult word...that's for me...I don't know... it is English, English how can I find what's important subject vocab and what's meaning in vocab...more vocab in science , more vocab ...in physics , chemical, math and what geology, biology, and eh... ..yes, curriculum is long then, no another methods...I think will come new methods, company to change all learn or teach, OK, give what new? Teach me first what to bring in my mind...bring to change...we want course ...[workshops, workshops] yes, workshop, yeah ... uh... to learn a new methods[of teaching] yeah, OK, if we don't have from where I can bring that what I can do then halla (now)...if you know what information including this curriculum OK, you can make goals...I don't understand ...[because] it's English, [curriculum], it's not difficult, aaadi (it's normal) it's normal, I love to search same subject to learn more, more, more, OK, but ...
Jamila2	Yes, I don't know, I don't know because I am science teacher... and ...no at this time no...because we , we try that , we ...with myself, you don't see any help from company uh,...group, no new, only talk...ADEC said that, Miss A said manager, managers said miss O ... what we needed for...say, say, say... yaani (that is), we don't ...they don't bring ...a new what...a new methods...if you come to change...to be have tatweer, we must , without to, [ha] bring yaani (that is) more methods ...yaani (that is) more methods ... We will choice... choose what's ...uh... yaani (that is)...eh... [what do you want to say...] like dress good for me or not good for me, size , colour...[suits, suitable] yeah...suitable, when they bring new methods we will suits, what suits methods for my student, maybe this suit not suit for science...maybe good for math or computer or...uh...or Islamic...yeah, ... if they give me ideas, or give me yaani (that is) new methods ...I will use and I will change better...yeah [develop]... yeah ... curriculum, problem yaani (that is)(I mean), same problem, my student keep it her boOK for herself...in her room...OK...we cannot use it because all of this in English... [consultant] say that now yaani (that is)... tell all your student to use a new curriculum, new home and translate...[curriculum or boOK?] boOK, boOK, new curriculum, translate all what ...they have in all subject...huh...OK yaani (that is)... that's yaani (that is)....that's difficult...but I say that for my student...I say that...because I think it's inshAllah yaani (that is), one word, two word, three word...when they know what's that, she will have more vocab and she can use for sentences, small sentence, big sentence...because, because they have more vocab, if they, if they yaani (that is), if they do that, to translate[the lesson at home]...but that's solve? not solve, yaani (that is)...negative and positive... negative which one negative, this negative because they will have more time to translate,[the students...that's good], laa(no), not good ...ah, that will take longer time to translate, yeah... OK, because we have long uh ...long uh, subject...which time can they will translate all this and understand... [at home] at home...maybe then they will hate my, my subject , sah wella laaa,(right or wrong?) zein (OK)... but positive, positive? Positive they will know a new vocab in English...

Con't

	AA.5)Teacher perspectives on the old and the new system
Kalmah1	[Very different from the way you were taught?] yeah...from before, I teach, this is for me, this is the 7th year, uh, sometimes, we have courses, uh, they try ...from the supervisor...they try to give us a new ways to teach so that it's not to divide between now and before, because...they are... all of them... they want they want the student , she's working, she's practice everything. They are the same, the same method I think. Also from the supervisor...also in the first semester, the supervisor came to us and she told us the same things about uh, teaching [the teaching, the teaching] not too different, a little bit I think...our curriculum we don't take any course about them. This is also problem ... What I think about the curriculum, this is the whole problem we have...uh...this is everything it is in the curriculum, in the new boOK it's there, but it's not translate about us , since we don't have enough English to can read this paragraph and understand it...I try to find in internet but there is not...not everything is correct in the internet...this is a problem , maybe I chose some subject, uh,, it is not correct... every weekend, I am stress because the curriculum...and also before we didn't do the unit, uh,, the lesson plan... ..you know, from the first day, not last year, before last year, when they told us ...from next week you will have uh,...partnership, I told my student you have to take uh, Rassool aalaeihoo al salam (the Prophet Mohammed said), Her word with us because he say like this... I try...but for me, I like eh, to practice English...
Kalmah2	No, because everything we did now, we did it before ...but about everything ...there's nothing especially that I can see that is change or happen big change. For me, maybe ... before I didn't use the English but now I using because we are talking with you, sometimes we see the English in class sometimes we learn new words to give the student to learn it... yeah, this is yes...good change...but curriculum, textbooks teaching...you don't see any differences there...maybe, I think before is better for me. [Why? why would you say that?] Because I know...yaani (that is)...when I have a book, I don't have to search internet every week, when I have a boOK, I will search only to get new information, to get pictures, to take...but now I search the curriculum from the internet...I think it's too hard, but I cannot take real idea about the, the lesson because not all information in the internet is true. Some of the it's not true because it is an idea for the person... No, because also before when we taught them form the book, there is some homeworks that they searched, but only now also they give them they have to come to teach the student , they will be the teacher... so that researching they work together, have group works , as now, but when I have a book,, I think khalas (finish) everything with me...today I search ...maybe I cannot search in internet I good idea I will search idea I give them another idea...but now I have to search for one week from the weekend because I have to give the lesson plan... this is also problem for us. I think before it's better for us...what I said before: the lesson plan, this the big problem for us, [what don't you like about the lesson plan?] I told you last time because...it's too much time from us, I told you if they give us the form, they write everything only what I will did do in the class and what I will need the student to do it in the class...this is OK... they have [books] but it is in English. And the student they don't have many language to, yaani (that is), sometimes... you visit us in the class, there's some words they didn't understand... I don't know but this is 2 years, uh, what I think, the student they didn't get any good information...we are searching in the internet to get the information for the student because we are still we don't have any ideas to teach in English, still we have problem. The problem is not that we have to take the IELTS to teach the English, the IELTS only certification, it will not get give us, I don't know how to say... it will not give us any information to teach this language in the class. This is ... I think this one, its need courses for the teacher to give them maybe words, to give everything that can use it in the class but the IELTS it's not a good idea that all teachers they have to take it because they study for the certification of ...because they have to catch the job...curriculum its very bad.. ...if I have an idea about the lesson it's OK, when I search I can get also one word kit can open for me many things ... but when I don't know anything about this one, this is a problem... also this is a mistake, I leave for the 2 month, what the student they get, I don't know... because I didn't teach it before...
Lamees1	The company concentrate on the activity of the girl, and the lab on the uh, vocabulary sometimes... yeah, it's better than in Arabic, I like it but it's very difficult for the student... about lab, about homework, about project or problem... uh,...I think this way better ...
Lamees2	Yeah, yeah...I think teaching method its very useful for the teacher and for the uh, girl.[the new one] yes , the new one....yeah, yeah, its uh, more skills for the girl , more activity for the girl, yeah ...how to make experiment, how to make this activity, how the girl get the information from theirsself not from the teacher... And how ...uh, the girl works together, how to apply the skills in the classroom, I think its OK for the girl...I think the girl like this uh, than the teacher open the book and read it ...

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

Teachers' Perspective of Abu Dhabi Reform
Summary of Teachers' Interview Set 1, 2, 3
BB - ENGLISH AS A MEDIUM OF INSTRUCTION (EMI)

	BB.1) The notion of English and teacher embarrassment
Asia1	Some word, I know it in English like 'hypotenuse' but I will not say it... 'hypotenuse' I say quietly ... sometime student maybe they not very good in math but they also in English they're bad ...so they say what I say, 'cosine', and 'sine', and 'hypotenuse'...
Asia2	Nil
Asia3	Nil
Bushra1	Nil
Clara1	Nil
Clara2	The part of English with the study math, math English, vocab for math, but first should be grammar ... maybe you speak with a student and maybe I speak to student one sentence it's wrong and have a student very excellent in English language, she understand what I said it's wrong, speaking English, speak wrong and they have student excellent in English... so what's your feeling? Ha! Ha!
Daria1	I have very, very good student in my class, in English so when I speak in English I am shame...very bad for me...English is another language...I like this, I like to learn the English, I like to learn the student math about English, it's not that bad, OK, but my language is Arabic English language is not...
Daria2	The main reasons for this English language it's very difficult for the teacher to learn the English to the student.
Daria3	Nil
Ebtisam2	Nil
Ebtisam1	Nil
Falak1	Nil
Falak2	Nil
Falak3	Nil
Ghalya1	But I eh... teach very little from you [learn], learn very little[yeah, fair enough]... you must, we need strong course to learn English more and teach student. Anybody, if consultant X come[yeah] or consultant Y [yeah], I feel ...eh...shoo bi ooloolou yaani (that is)(how to say it), I feel , yaani (that is) ana ma iqdar isahhuh, bifallaj(I am unabale to correct, I am paralyzed)...yaani (that is), when you come my class, [yeah] I know, I ... I want to teach but I feel...uh, [self conscious], I cannot speak... I cannot.eh...when you come, not Ghalya in the class... when you out, sorry , when you out, I explain very strong for my student with English[yes]... vocabulary [yeah]... what I know yaani (that is)[yeah]...two year now, I think, this my English, not come better...but ... don't uh...this my uh, ana ma yeread azaaoolum (I do not wish to upset you)...we need off, yaani (that is)(that is), two hour, we, uh, don't have cover, you give me English, I am not angry, but good English.[yes][yes]...yaani (that is), I ... come with consultant, I go, I forget, I not clear in my head, in my eh... head..., yaani (that is), hayda ma looghatiwaht (this is not my language) I mean is that this is not my language)... ahyanan (sometimes), red faal (reaction), ana aaned, qooloolha fi englizi...yaani (that is)(I react, explain it to her in English), (Falak interprets) She's stop eh...talking English...
Ghalya2	Nil
Hala1	Nil
Hala2	Nil
Jamila1	If we study from KG that's good, but ...in grade 8.... now...you must to learn or teach in English? Difficult for me...yaani (that is)...because I have a problem with English language...yaani (that is) you know what level.... can I put ... can you put me which level? It's very down.
Jamila2	Nil
Kalmah1	Nil
Kalmah2	Nil
Lamees1	Nil
Lamees2	Nil

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	BB.2) The notion of English as the language of science and mathematics versus the use of Arabic
Asia1	Nil
Asia2	I like it in English... but is think it for me, I am Arabic , my first language Arabic, and I think when I teach student , when I teach student , I teach math, so I like teaching first language not teach math in other language...the student is most of them see the English is difficult ... and math is difficult ...I teach sometime math and English... now when we write word problem , sometime student wrote in to solve when I am teaching it, but when they go home see the question in English , uh , they don't know the question... not the solving ... they don't know what the question to do...I think if in America, fi dawletkom, shrehna bi alaarabi, if we teach in Arabic, (if we taught in your country in Arabic) you can see its difficult...Nehna,(we/us) in this environment, now, they put the English first, for... fil wazaef (for jobs), in the jobs we want ... I don't agree with that ...(at this point a colleague quickly turned off the taperecorder in order to avoid problems...the person was about to mention names in high government...then we put it on again and she continued) ...we Arabic country.
Asia3	Nil
Bushra1	For me not difficult...but difficult for the student...More math it's about uh,...operation , it's not about language , it's not a big deal for us, but there is a big deal in other subject... sah(correct?)?... its wasting time to teaching English when the exam will come in Arabic wasting our time...when I speak in English , student say miss I take the test in Arabic why you bother yourself?...this is the point...our Prophet say "you must uh, learn another language...we believe its OK for student to study al (the) math and science in English but it's difficult for us because it is not our first language...this is the problem, we don't disagree, yaani (that is), even I understand English...for me I study in high school I study uh, math ... limited and integration... stuff, it was difficult when I study it in Arabic in, when study in English I understand every single word...[why do you think so?]I don't know but I believe because especially calculus created by foreigners OK, fa, yaani (so, that is), the one who introduce this math is much easier to study by its language...
Clara1	I am very happy to ... for our scientific subject because I am teaching math. ...for our subject it's OK, for science and Maths and English...because they will need it after, so I am not thinking what is going to happen next year, no, but after 4 , 5 years, when they get to the secondary level, they will be fine and they will be relaxed and less nervous...Other course they can have additional books for social studies in Arabic , that's what they want, for and religion still in Arabic , but for science and Maths it's perfect, it will be perfect.
Clara2	I am very happy to...for our scientific subject because I am teaching math. In college its in English, so if they're started from this early age or early stage, it's better for them ... for science and maths it's perfect! Some language teachers using religion and English as excuse against reform... Kids don't even speak proper Arabic. Before, they didn't even understand the Arabic in maths books! Kids learn broken English from nannies. English is easier...there is one you for all while in Arabic there are 6-9 forms...for some subjects its fair [to teach in English , but beside it they have to improve even the way of learning Arabic and Islamic subjects and history and social studies they can have it both, in English and in Arabic...
Daria1	Nil
Daria2	Nil
Daria3	Nil
Ebtisam2	Nil
Ebtisam1	Nil
Falak1	Nil
Falak2	My opinion is uh, if teacher can explain everything [Maths] in English and students understand everything in English is very nice...but we must do step by step by step..because student before learn everything in English...now better before, student can understand maybe 60% or 70 % in English but they want more uh, practice.
Falak3	Nil
Ghalya1	Nil
Ghalya2	I want to teach in English...I like speak English, OK? But when I class speak Arabic, teach [Maths] Arabic, I feel, uh, very happy, I cannot... eh...I feel I am teacher in the class because I have Arabic in my hand...before when we student we teach, learn in Arabic when go university in English we have very problem...now very good to teach students in English, very good also for us...but we need course.
Hala1	bas (but) not all...no all, no explaining all are in English ... uh...enough address, vocab...uh...explain moosh daroori(not necessary)...OK, but inside school uh, no important all...Arabic , Arabic student Arabic, explain Arabic, Arabic half, half English...excellent...important yaani (that is), nice, nice very nice uh, student 'yetaarafoo'yaani (that is) learn some words English, vocab , 'taalimi academi'(academic words), vocab triangles, circles, address , formula... nice, half Arabic , half English because important student understand lesson...now no lesson English all,uh, yaani (that is), vocab nice, nice quiz Arabic and English nice, slowly, slowly, slowly another university, jemaa... but student need explain Arabic beside English.
Hala2	Nil

Con't

	BB.2) The notion of English as the language of science and mathematics versus the use of Arabic
Jamila1	You love your language, and we Arabic we love my language, OK, ana(I am) I am Arabic, friends Arabic, students Arabic ... why we teach in English, why? OK why you don't teach eh...in Arabic in your country, why? walla yaani (that is), they ...mafi(there is nothing)...halla (now), they don't have <i>anything</i> only to change teaching for English! OK, I have another suggestion, why you know I work about 12 years, tell me why you don't tell me go to home, relax we will bring new teacher, small, to teaching in English...I think they yaani (that is), can teaching English because they learn English in her college.
Jamila2	No, not fair...Arabic and English that's OK yaani (that is), that's OK...if we , yaani (that is), if we will change, why they don't ...one years, one years, study , study , only study what ? Language only teacher and student... it will be go, one year go to learn only English... I don't know...because my think is different from Sheikh bin Zaid and Mohd Zaid is different form Mohd bin Rashed...what correct strategy? If that suit for this country , OK, we want to learn English, why we don't learn Japanese? Why we don't learn Spanish...I think Japanese will talk about technology...Japanese the first country for education and for job and for how to...how they yaani (that is)... how manage time...I think that's OK yaani (that is)...that's what we want ...zein oo bbaadeain? (And then, what's next?)...they think that we will <i>song</i> in English? Or I will <i>wrote</i> in English and but wallahi I don't know,... my think ...my opinion, OK that's right, English language that's good for us, because new language to understand what they want what they say ilaakhirih (etcetera)...
Kalmah1	[Do you think if the students are taught in English they will forget their Arabic?]no, no because...uh...I think if there is subject in Arabic and subject in English, I think it will not be a problem for Arabic, because they study Arabic, Islamic , geography, history those 4 subject they can study in Arabic, I think it's not a problem...
Kalmah2	Nil
Lamees1	Nil
Lamees2	Nil

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	BB.3) The notion of English for future studies and career options/for students/for teachers
Asia1	Nil
Asia2	I like it in English, we need it in the university in English.
Asia3	Nil
Bushra1	Before you bring English in ...shoom sammi(what do you call it)...government school, all the parents who want better education for their ... bring, take them to the private school , they will have uh, study math and science in English, because they want to prepare them for university uh... for their career... like this
Clara1	In college it's in English, so if they started from this early age or early stage, it's better for them because we continue in English after all its very good to have started English from now... when they get to the secondary level, they will be fine and they will be relaxed and less nervous...
Clara2	Because in the end, if they want higher studies and if they are working in medicine faculties or engineering, or computer ...all these subjects now are by English...
Daria1	Nil
Daria2	Nil
Daria3	Nil
Ebtisam2	Nil
Ebtisam1	Nil
Falak1	bi nesba lil mustakabal fi jamaa, yakoon afdal tabaan (it is better for the future, for university)
Falak2	In university, all subject in English, better they learn now to be good in university...yes, very nice to teach in English because our student will be in university, in university they must learn in English.
Falak3	Yes, very nice to teach in English because our student will be in university ...but we must do step by step. I'm teacher, now my level in English better than before in English...
Ghalya1	Nil
Ghalya2	Nil
Hala1	Nil
Hala2	Nil
Jamila1	[English] maybe that's good for secondary ... yeah because they will go to university, university all books, may be all books, not all specialty ..Learning English, so they must to learn English...
Jamila2	Nil
Kalmah1	I think it's better for them because now all the university in English, they need to learn English, not like us, when we joined the university in the beginning we have problem because the English language...
Kalmah2	Yes, because now my daughter she study in English. Why not if other student, other daughters... it's OK ...they will get information and they can complete their education also in university they will not too much tired to study.
Lamees1	Nil
Lamees2	Nil

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

	BB.4) The notion of English in communication and personal benefit.
Asia1	Nil
Asia2	Now for my student , daughter or for my son I want and I try this shobbak (window), I want them to know English, uh... because ..we didn't uh, first, we didn't know the important for English... but now we see English in every time ... we in hospital, we must talk in English, in the shop we must talk English... ma baa (no more) think in outside is better, lel assaf, men al Arabic(outsiders are better unfortunately) country...if my daughter is sick I want to go outside so I want English...
Asia3	Nil
Bushra1	Nil
Clara1	Nil
Clara2	Nil
Daria1	Nil
Daria2	Nil
Daria3	Nil
Ebtisam2	Nil
Ebtisam1	Nil
Falak1	Nil
Falak2	Nil
Falak3	Nil
Ghalya1	Very good also for us...but we need course
Ghalya2	Nil
Hala1	Nil
Hala2	Nil
Jamila1	That's good for me, but ... yaani (that is)...[in what way it is good?] talk with you practice you, when I go to the shopping because not all Arabic...Phillipini...Indonisi...in my home , woman help to my mother, [yes, the maid] maybe this she cannot speak Arabic, OK, that's good when I practice English ...and now the modern ...English is fash... fashionable English very ...yaani (that is)...two language Arabic, English, Indian, tetkallam(you speak) Indian?
Jamila2	My think ...my opinion, OK, They want tatweer (reform) that's good but yes I have some problem for me, zein (OK), I want learn English, we don't have time...
Kalmah1	For me, I hope to be more uh, better in English because uh, I think it is better for me for teaching for my children, for my life I think it is ...also in our religion, there is uh...a ...like a Hadeeth from al Rasool,...assalam(the Prophet), he tell us that you have to study uh... another language, a new language... because sometime Subhan Allah(God Bless), he is not studying but... (she smiles)...He know everything about now...He tell this because maybe... you and other consultants you don't know Arabic. If I sit with you, I understand what you know... this is what He mean...
Kalmah2	Nil
Lamees1	Language is very easy , very easy very easy...I like it very much.
Lamees2	I think it's important to do it in English, to teach English, I think it's better...for me , uh, to uh, go outside and with the people because ... all people talk English.

INDEX ()=ENGLISH TRANSLATION []=INTERVIEWER COMMENTS

Appendix D Asia's Diary: 24th September, 2008

التاريخ موعد	Date: 24 / 9 / 2008 Subject	التاريخ موعد	موعد الدرس
	<p>• Before the school start I put some dream and some activity in my mind but in the beginning of the year every thing go away because alot of things such as the school was very very dirty and the can you can find the sand every were, also we got a problem with choose the grad what we will learn in this year, and I have 2 Grad 9 and 6.</p> <p>In Grad 6 we have 41 student and it's difficult to teach them, the most thing make me nervous this year, that Am Amma Maltar not with us and I miss her jokes to and thing she do much.</p> <p>also I'm concern about Samaya problem.</p> <p>So I think al that can make me nervous, but celest do alot of things for math stuff</p>		

Appendix E Ebtisam's Diary: 24th September, 2008

التاريخ	Date : / / الموافق	التاريخ	/ /
الموضوع	Subject	موضوع الدرس	
			24.9.08
			I Don't Like this year at the begining
			because: 1. I changed my class.
			2. School was very dirty
			3. I miss my friend and
			My last year students
			and also because I changed my
			house and it is not near my
			school.
			but because of the good group I forget
			every those bad things.

Appendix F Letter to ADEC

Al Girls School
.....
Abu Dhabi Zone
U.A.E

Mr. Paul Doorn
Manager
Public Private Partnerships
Abu Dhabi Education Council
Abu Dhabi

4th December 2007

Dear Paul,

I am writing to you courtesy of the Contract Director for School Improvement Partnership to discuss some serious maintenance issues at our school. I am also writing on behalf of the senior management team of the school who have also submitted many letters to ADEC and the municipality. I regret having to write this letter but feel it is my duty to inform you. Whilst I realise that there are issues in many schools, and we are but one, my concern is School and I am determined to do my best to improve the situation for the benefit of the students and staff here.

On Thursday, 29th November, I once more toured the school, to check on issues whilst taking a number of photographs to highlight the most pressing problems. I enclose a copy of the photographs for your records. As you can see there are many cases of safety hazards that need to be addressed immediately. Our young ladies have to cope with poor or leaking air conditioning units, no shaded outdoor area, science labs that are too large for the room, dangerous stair rails, broken stairs, holes in the classroom walls, discarded building rubbish next to the entrance of the school, metal post remains in the pathway leading to the music room to mention but a few. The maintenance issues sent to you in October are still outstanding. I enclose this list with notes on works completed to date.

One of the major indicators of successful schools is a quality learning environment. These problems do not help in creating such an environment.

I sincerely ask and hope that you can assist us to do something to rectify this situation as soon as possible. It would give such a great boost to all in school were these issues resolved before the beginning of semester two in January. It would also manifest the commitment of ADEC to the education of all young people and that improvement of local schools for local students is a priority.

Yours sincerely,

.....
..... School,
Design Specialist Leadership and Organisation

Appendix G Report on Teachers' School Vision

Report on Coordinators PD

Topic: Our vision for the perfect school

The group of subject coordinators and vice principals were asked to discuss their visions for an ideal school and make a poster to represent their ideas. They were given magazines to use for pictures to include in the collage poster.

Comments:

The teachers enjoyed the activity and the results were very interesting. In all there were 4 groups working and of these, only one included pictures of children. When asked to explain their vision the following comments were made:

- The car is so that we can go out of school easily to attend meetings etc.
- Food: good food to be available for all so that the staff and students can have choices.
- Trees and flowers represent the environment and the need to make the school environment as beautiful as possible
- Mosques represent the need for spiritual education and the teaching of Emirati and Islamic values to be strong and to intersperse everything else.
- Buildings: the staff wanted a large, purpose built campus with state of the art facilities including technology.
- One group only had pictures that showed children or possible future careers as a vision for the school.

In general the vision as portrayed by the majority of the coordinators focused very much on their own personal comfort and providing facilities for them to work in. Only one group truly focused on provision of quality education for the students and offering a variety of experiences for them to learn from.

Appendix H Jamila's IELTS Comments

IELTS Certification is not new thing, but it is old. ADEC force us to take this certification in may 2010 in order to stay or keep in ministry education. In my opinion it is very useful for us, but there is disadvantages in this issue.

One of my opinion view, IELTS exam does not ~~benefit~~ benefit me in my teaching that's because IELTS certification and it does not have my relation to my work which is regular scientific and academic vocabulary. For example if I get IELTS certification what is the benefit it my student and me have the same language which is an Arabic language.

Another disadvantage is the IELTS score ADEC require is too high to achieve that. For example it is better to decrease the mark and make 4 instead of 5.5.

and Problem is time. The time is insufficient to take course in IELTS especially my level in English is weak and I need more time to enhance my level.

Moreover, the place that I have take course in IELTS is far away from my home and every morning I go to my work. As a teacher I have many responsibilities and have to prepare lessons for my students.

In conclusion, I hope to take Certification also I hope ADEC help us by giving us enough time to take courses in our school. I request to decrease IELTS score

Appendix I Kalmah's IELTS Comments

writing 1

Subject IELTS- التاريخ

Date _____ التاريخ

The IELTS is an international English exam. All the English, Computer Math and Science teachers who work in the ministry of education in Abu Dhabi schools have to take it. So they have to study very well and learn all instructions for the exam. The ministry wants the teachers to take the IELTS during this year, they have to finish it before the end of 2019.

In my opinion this is not good idea to learn language. IELTS does not add new vocabulary to science teachers and and it will not add any new methods for teaching. Also students for IELTS need time to study. The teachers have many things to do, they are teaching, prepare for the lesson, prepare activities for the lesson and they have to give test and collect it.

Also the IELTS is costly. All the

Appendix J Curriculum and Assessment Summary



Curriculum and Assessment Summary

ADEC Core Subjects

Cycle 2 (G6-9)

	Curriculum	Resources	Final Grade Assessment
English	ADEC Standards	Texts are provided by the Ministry of Education but are used as resources only. For example, "UAE English Skills" and "NewParade"	Continuous Assessment (by teacher) : 60% ADEC Exams: 40%
Maths		"Signpost" texts (in English) supplemented by a variety of resources in English and Arabic	
Science		"UAE Science Focus" text (in English) supplemented by a variety of resources in English and Arabic	
ICT		Hardware availability variable; some additional PCs supplied via IT upgrade	CA only- common assessment tasks applied twice a year but dependent on resource availability

1. About the ADEC curriculum:

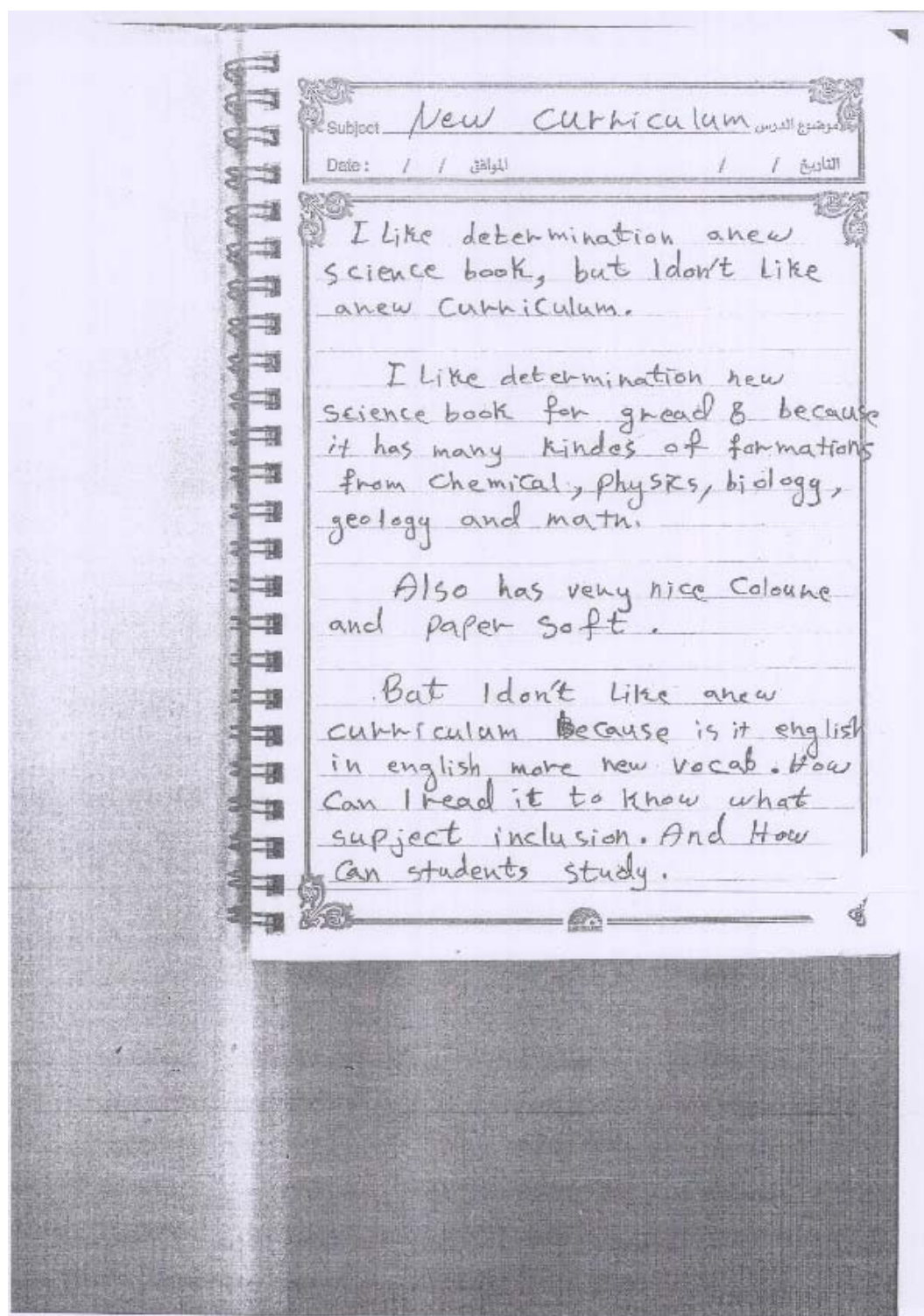
1. Al School adopted a new curriculum for English, Maths, Science and ICT in the 2007/8 academic year. This curriculum was developed in New South Wales, Australia and adapted by the Abu Dhabi Educational Council (ADEC). These 'Core subjects' are taught through the medium of English language. To support the development of English, teachers receive ESL/IELTS training (see Continuous Professional Development (CPD) in the Staff section).

2. One major difference between the previous Ministry of Education (MoE) curriculum for the Core subjects and the current is that the textbooks are used as a resource and not as the curriculum. They are to guide the teachers and students throughout the year. This encourages the pursuit of knowledge, critical thinking skills, reasoning, research skills, and the application of knowledge learnt. The students are assessed throughout the year against ADEC standards. These are expectations for students in terms of knowledge, skills and understanding and are incremental across grades 6-9. They are based upon international standards.

2. Ministry of Education (MoE) Subjects

	Curriculum	Resources	Final Grade Assessment
--	------------	-----------	------------------------

Appendix K Jamila's Curriculum Comments



Appendix L Ebtisam's Diary: 7th April, 2008

التاريخ موضوع	Date : / / الموافق Subject	التاريخ موضوع الدرس
	What Can I say... what can I do in this shape...	
	I feel bad! bad! bad! bad! bad!	
	BAD...	
	No one can feel what can I feel now...	
	But this is not the end of the world...	
	I will Cont... and I will finish this Curriculum in Shan Allah...	

Appendix M Asia's Diary: 7th May, 2008

Date: / / الموافق	7 th May 2008 / / التاريخ
Subject	موضوع الدرس
<p>* I think that I'm a good teacher I have some positive thing, and a little thing negative.</p>	
<p>* the positive things.</p>	
<ul style="list-style-type: none">• I can repeat any question and find a better way to solve the question until 90% of student understand what I want.• I'm organised the lesson time.• Some time I'm friendly with my student but when it need I will be serious.• I may make my student think in creative ways.	
<p>* the negative things.</p>	
<ul style="list-style-type: none">• Some time when the students be noisy or I feel that they start not respect me I talk with them with high voice.	

Appendix N Ghalya's Observation Sheets (8th March, 2008)

SUBJECT: MATHS 6.2 NAME: DATE: 8 th March, 2008 OBSERVATION SHEET		
English		Comments
OK girls Apple Only apple Strawberry Grapes Bananas Only five minutes Apple group How many collect apple...8 apple excellent Together Eleven ...excellent Excuse me, quiet What do you see One minute ok Grapes Excellent What do you see? Only orange/only apple/banana Sorry The same colour Green 7 blue	Well done, excellent Numbers Like terms...like terms... Unlike terms 6 minute only Only put your hand Ok girls Listen to me Put your pencil Listen Excellent Who agree with Multiply 20 times y times x times z First course We take square root Times Square We did before 2 mark Orange plus orange plus orange 3's excellent 1's excellent Now we eat the fruit	

Appendix O Ghalya's Observation Sheets (14th October, 2009)

SUBJECT: MATHS 6.2 NAME: DATE: 14 th OCTOBER, 2009 OBSERVATION SHEET		
English		Comments
Date/title/vocabulary Are you do your HW? Quickly please? Open your book 58-59 also 46 OK excellent Mariam, why forget? You finish?ok? good What's your name? You forget your book? Why? Everyday we have math class Yes Please go up there 'talaaie' your book Open 46 . Any questions there? P58 easy? Ok. P59, this one? Table ok. Only we take 5 (<i>=meaning the first five columns</i>) Without teacher Tell me all sentence 60 times 50 first we take the zero in the answer 6x5=30 excellent Again the ...w zero in answer... Without teacher 800x50 we take zero Close your book 3x9, 6x7 again...excellent 8x6 Didn't help you (<i>meaning the people in the group were not of help/were incorrect</i>) Who read this one? Only read Grade 5 listen we put 2 & 1 Before 1x3 what we do?	Cont. Excellent we put 0 before we put ...after... One minute Addition yes, plus 2 plus 0 Excellent Three hundred twenty two Who read the number? Excellent ...1836... Three number by two number Before, don't forget Who read this number? Ten thousand six hundred and eight Now, we see ...a question Are you understand? Open your book page 72 Put your pencil First one on the board Correct your answer Please Check your answer Pleasex2 Who's right? ...finger...that's good Who read the number? ...homework Please ...table...	Are there any absences? Any questions? Are there any questions? Focus please! Come to the board.

REFERENCES

- Abu Dhabi Education Council (2009, June). Strategic Plan for P-12 Education (2009-2018). Retrieved September 10, 2009, from <http://www.adec.ac.ae/ADEC%20Shared%20Documents/attachments/Public%20schools/Strategic%20Plans/P12-Summary-June-2009-D.pdf>
- Abu Dhabi Education Council (2009, November). Cycle 2 Key Performance Indicators. Abu Dhabi: Abu Dhabi Education Council.
- Abu Dhabi Education Zone (1980). Retrieved July 1, 2011 from <http://www.adez.ae/>
- Al Baik, D. (2007, October 1). Gulf States suffer 'erosion of culture'. *Gulf News.com*. Retrieved August 18, 2011 from <http://gulfnews.com/news/gulf/bahrain/gulf-states-suffer-erosion-of-culture-1.204926>
- Al Fahimi, M. (2004). *From Rags to Riches: A Story of Abu Dhabi*. London: London Centre of Arab Studies. (Original work published 1995)
- Al Jenaibi, B. (2010). Job Satisfaction: Comparisons among diverse organizations in the UAE. *Management Science & Engineering*. 4(3), 60-79. Retrieved March 11, 2011 from <http://cscanada.net/index.php/mse/article/viewFile/1439/1636>
- Al Khaili, M.K. (2005). *Welcome from the Director General*. Abu Dhabi Education Council. Retrieved July 1, 2011 from <http://www.adec.ac.ae/English/Pages/DirectorGeneral'sMessage.aspx>
- Al Kitbi, E. (2006, May). Gulf States: Educational reform's real goals. In *Arab Reform Bulletin*. Vol. 4, (4). Retrieved August 3, 2010 from <http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=20896>
- Al Taboor, A. (2008, 24 February). *History of Education*. Retrieved 29 October, 2009 from <http://www.moe.gov.ae>
- Allison, L. (2009). *Political Dictionary*. Retrieved March 25, 2009, from <http://www.answers.com/topic/critical-theory>
- Apple, M. W. (1990). *Ideology and curriculum*. London: Routledge.
- Apple, M. W. (1995). *Education and power*. New York, NY, London: Routledge.
- Apple, M. W. (2010). *Global crises, social justice, and education*. New York, NY, Abington, Oxon: Routledge.
- Auerbach, E. (1995). The politics of the ESL classroom: Issues of power in pedagogical choices. In J. W. Tollesfson (Ed.), *Power and inequality in language education* (pp. 9-33). New York: Cambridge University Press.
- Baez, B. (2008, March 13). *The Economics of English as a Foreign or International Language*. In TESOL Arabia Conference, Dubai, UAE.

- Barber, M., Mourshed, M., & Whelan, F. (2007). Improving Education in the Gulf, special edition: Reappraising the Gulf States. *The McKinsey Quarterly*, p39-47.
- Barber, M., & Mourshed, M. (2007, September). *How the world's best performing school systems come out on top*. A McKinsey & Company Report. Retrieved February 12, 2009 from http://www.mckinsey.com/App_Media/Reports/SSO/Worlds_School_Systems_Final.pdf
- Bardsley, D. (2010, February 19). Emirati graduates give up on teaching. *The National*, p.1.
- Bassey, M.O. (1999). *Western education and political domination in Africa: a study in critical and dialogical pedagogy*. Westport, CT, London: Bergin and Garvey.
- Bell, J. (2000). *Doing your research project*. Buckingham, Philadelphia, PA: Open University Press.
- Bolin, F. S. (1989). Empowering leadership. *Teachers College Record*, 91(1), 81-96.
- Borg, W.R. & Gall, M.D., (1983) *Educational research: An introduction*. New York, London: Longman.
- Brown, J. & Rodgers, T.S. (2009). *Doing second language research*. Oxford: Oxford University press.
- Bruthiaux, P. (2002, Autumn). Hold your course: Language education, language choice, and economic development. *TESOL Quarterly*, 36 (3), 275-296.
- Carnoy, M. (2000). *Sustaining the new economy: Work , family and community in the information age*. Cambridge, Cambridge University Press.
- Carr, W. & Kemmis, S. (2002). *Becoming critical: Education, knowledge and action plan*. London, New York: Routledge Falmer , Taylor & Francis
- Carspecken, P. F. (1996). *Critical ethnography in educational research: A theoretical and practical guide*. New York: Routledge/ Falmer.
- Castellano, M. & Datnow, A. (2000). Teacher's responses to success for all: How beliefs , experiences , and adaptations shape implementation. *American Research Journal* 37(3), 775-779.
- Chin, T. S. & Loo, T. E. (2007, December 16). To change or not to change. *The Star.com*. Retrieved on August 30, 2011 from <http://thestar.com.my/education/story.asp?file=/2007/12/16/education/19750932>
- Chisholm, L. & Leyendecker , R. (2008). Curriculum reform in post-1990s Sub-Saharan Africa. *International Journal of Educational Development*. 28, pp195-205.
- Chouriakli, L & Fairclough, N. (2005). *Discourse in late modernity, rethinking critical discourse analysis*. Edinburgh: Edinburgh University Press.

- Clark, K. (2010, January). 'Can school reform really work? *U.S. News & World Report*, 147(1), 23.
- Clark, K. (2010, January). The extreme school makeover. *U.S. News & World Report*, 147(1), 24-31.
- Clark, K. (2010, January). School reform's new chief financial officer. *U.S. News & World Report*, 147(1), 30-31.
- Coffey, A. and Atkinson, P. (1996). *Making sense of qualitative data: complementary research strategies*. Thousand Oaks, CA:Sage.
- Cohen, L., Manion, L. & Morrison, K. (2000). *Research methods in education: 5th Edition*. New York: Routledge Falmer.
- Contreras, M. E., & Simoni, M.L.T. (2003). The Bolivian education reform 1992-2002: Case studies in large –scale education reform. *Country studies Education Reform and Management Publication Series 27855*, Volume II, No. 2.
- Cornett, J. W. (1991, Spring). Empowerment not empowerment of teachers: The role of teachers' systematic reflection in restructuring schools. *Social Science Record*, 28(1) pp 71-77.
- Crotty, M. (2005). *The Foundation of Social research*. London,Thousand Oaks, New Delhi: Sage Publications Ltd.
- Crystal , D. (2004). *English as a Global Language*. Cambridge: Cambridge University Press.
- Cummins, J. (2004). *Language, power and pedagogy: Bilingual children in the crossfire*. Clevedon, England: Multilingual Matters.
- Davies, B. & Ellison. L. (2001) *School leadership for the 21st century: a competency and knowledge approach..* London, New York: Routledge Falmer.
- De Boer, K. & Turner, J. M. (2007). Beyond oil: Reappraising the Gulf States. *McKinsey Quarterly*. Retrieved on July 11, 2011 from http://www.relooney.info/SI_ME-Crisis/0-Important_88.pdf
- Dello-Lacovo,B. (2009).Curriculum reform and 'quality education' in China: An overview. *International Journal of Educational Development*. 29, 241-249
- Doherty, C. & Singh, P. (2005). How the West is done: simulating Western pedagogy in a curriculum for Asian international students. In P. Ninnes & M. Hellsten (Eds.), *Internationalizing Higher Education: Critical Explorations of Pedagogy and Policy*, (Chapter 3, pp.53), Springer: Dordrecht, The Netherlands.
- Elmore, R. F. (1997, September 22). The politics of educational reform. *Issues Online in Science and Technology*. Retrieved February 18, 2010 from <https://s3.amazonaws.com/docs.docstoc.com/pdf/5642036/dad8fe9e-5e5d-4ad6-ade4-d1cac6e96194.pdf>

- El Shamma, D. (2010, June,3). Capital's private schools fall short of performance goals. *Gulf News.com*. Retrieved on February 3, 2011 from <http://gulfnews.com/news/gulf/uae/education/capital-s-private-schools-fall-short-of-performance-goals-1.636073>
- Fang, X. & Warschauer, M. (2004, Summer). Technology and curriculum reform in China: A case study. *TESOL Quarterly*. 38(2), 301-323.
- Fairclough, N. (2003). *Discourse and social change*. Oxford, UK: Polity.
- Ferris-Lay, C. & Glass, A. (2008, September 7). Crisis of the class of 2009. *Arabian Business* . Retrieved January 10, 2009 from <http://www.arabianbusiness.com/529969-crisis-of-the-class-of-2009>
- Findlow, S. (2006). Higher education and linguistic dualism in the Arab Gulf. *British Journal of Sociology of Education*, 27(1), 19-33.
- Foucault, M. (1982,Summer). The subject and power. *Critical Inquiry*, 8 (4), 777-795.
- Foucault, M. (1980). *Power/knowledge: Selected interviews 1972-1977*. New York: Pantheon Books.
- Freeman, D. & Richards, J.C. (1996). *Teacher learning in language teaching*. Cambridge, Cambridge University Press.
- Freire, P. (1985). *The politics of education: Culture, power and liberation*. Westport, CT, London: Bergin & Garvey.
- Freire, P. (2000). *Pedagogy of the oppressed*. London, New York: Continuum.
- Freire, P. (2004). *Pedagogy of hope*. Continuum: London, New York.
- Fullan, M. (1994). *Change Forces: Probing the depths of educational reform*. London, New York, Philadelphia: The Falmer Press.
- Fullan, M. (1997). *What's worth fighting for in the principalship?* 2nd edition. Toronto: Elementary Teachers Federation of Ontario; New York: Teachers College Press.
- Fullan, M. (2001). *Change forces, the sequel*. . London, Philadelphia: Falmer Press.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco: Jossey-Bass
- Fullan, M. (2003). *Change forces with a vengeance*. London, New York: Routledge Falmer.
- Fullan, M., (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin Press, Inc.
- Fullan, M. (2007). *The new meaning of educational change: 4th edition*. New York: Teachers College Press. Columbia University

- Fullan, M. & Hargreaves, A. (1996). *What's worth fighting for in your school*. London, Falmer Press.
- Fullan, M., Hill, P. & Crevola, C. (2006). *Breakthrough*. Thousand Oaks, London, New Delhi: Corwin Press, Sage Publications Ltd., Sage Publications India Ltd.
- Furedi, F. (2011). Introduction to the marketisation of higher education and the student as consumer. In M.Molesworth, R. Scullion & E. Nixon (Eds.) *The marketisation of higher education and the student as consumer*. (pp 1-8). Abinton, Oxon & New York, NY: Routledge.
- GEMS (2009). Retrieved July 1,2011 from <http://www.gemssip.com/>
- General Secretariat Executive Council Emirate of Abu Dhabi (2011/1974). Retrieved July 1, 2011 from <http://gsec.abudhabi.ae/Sites/GSEC/Navigation/EN/PolicyAndStrategy/social-and-human-resources,did=89950,render=renderPrint.html>
- Gershberg, A. L., Meade B. & Andersson, S. (2009). Providing better education services to the poor: accountability and context in the case of Guatemalan decentralization. *International Journal of Educational Development*. 29, 187-200.
- Gerson, J. (2008, September 25). Cultural tourism 'key to economy'. *The National*, p.1.
- Ghazal, R. (2010, September 15). Ruler who's one of the old school. *The National*, p.3.
- Giroux, H. A. (1988). *Teachers as intellectuals: Toward a critical pedagogy of learning*. South Hadley, MA: Bergin Garvey.
- Giroux, H. A. (2001). *Theory and resistance in education:Towards a pedagogy for the opposition*. Westport, CT: Bergin Garvey.
- Giroux, H. A. (2007). Democracy, education, and the politics of critical pedagogy. In P. McLaren & J. L. Kincheloe, (Eds.) *Critical pedagogy: Where are we now?* pp1-8. New York: Peter Lang Publishing.
- Giroux, H. A. (2011). *On critical pedagogy*. New York, London: The Continuum International Publishing group.
- Giroux, H. A. & McLaren, P. (1989). Introduction: Schooling, cultural politics, and the struggle for democracy. In H.A. Giroux & P. McLaren (Eds.) *Critical pedagogy, the state, and the cultural struggle* ppxi-2. Albany: State University of New York Press.
- Giroux, H. A. & Simon, R. (1989). Popular culture and critical pedagogy: Everyday life as a basis for curriculum knowledge. In H.A. Giroux & P. McLaren (Eds.) *Critical pedagogy, the state, and the cultural struggle* pp236-252. Albany: State University of New York Press.

- Gitlin A. & Margonis F. (1995). The political aspect of reform: teacher resistance as good sense, *American Journal of Education*, 103(4), 377–405. Retrieved on May 19, 2011 from <http://www.jstor.org/pss/1085751>
- Glasser, S. (2003, February, 13). Qatar's educational reforms trigger unease among Muslim leaders. *The Guardian*. Retrieved on June 5, 2010 from <http://www.guardian.co.uk/education/2003/feb/13/internationaleducationnews.hig hereducation/print>
- Gonzalez, G., Karoly, L.A., Constant, L., Salem, H. & Goldman, C.A. (2008). *Facing human capital challenges of the 21st century education & labour market initiation in Lebanon, Oman, Qatar, and the United Arab Emirates*. Rand Corporation: Santa Monica, CA; Arlington, VA; Pittsburg, PA. pp1-133.
- Goodlad, J. (1992, November). On taking school reform seriously. *Phi Delta Kappan*, 74(3), 232-38
- Hargreaves, A. (1999). *Changing teachers, changing times*. New York: Teachers College Press/London: Cassell.
- Hargreaves, A. & Fullan, M. (1993). *Understanding teacher development*, London: Cassell Villiers House. (Original work published 1992)
- Henig, J. R. & Stone, C.N. (2008, May). Rethinking School Reform: The Distractions of Dogma and the Potential for a New Politics of Progressive Pragmatism. *American Journal of Education*, 114(3), 191-218.
- Healey, F. H. & DeStefano, J. (1997). *Education reform support: A framework for scaling up school reform*. USAID: Advancing basic education and literacy project. Retrieved July, 3, 2011 from <http://www.equip123.net/archive/e2-007.pdf>
- Hofstede, G. (1980, Summer). Motivation, leadership and organization: Do American theories apply abroad? *Organizational Dynamics*, 42-63. In D. S. Pugh, (2007) (Ed.), *Organization Theory: Selected Classic Readings, fifth edition*. (pp.223-250). London, England: Penguin Business.
- Hudson, P. (2009). Learning to teach science using English as the medium of instruction. *Eurasia Journal of Mathematics, Science & Technology Education*, 5(2), 165-170.
- Jansen, J. D. (2009). *When Politics and emotion meet: Educational change in racially divided communities*. In A. Hargreaves & M. Fullan (Ed.) *Change wars* (pp. 184-199). Bloomington: Solution Tree.
- Jogsma, K. & Jogsma, J. (2006). Teaching science and mathematics in English in grade 1 and 2 classrooms in the UAE. *International Journal of learning*, 12(5), 226-236.
- Johnson, R.B. (1997). Examining the Validity Structure of Qualitative Research, *Education, Questia*, 118. Retrieved July 3, 2011 from <http://www.questia.com/googleScholar.qst;jsessionid=KZpBjZnvyQkhtsd023tQRLFNSvnbGGQ2hqdL3LrLf5W66QhDDBHv!1242489961!-715806550?docId=5000583075>

- Joyce, B. & Weil, M. (1996). *Models for Teaching*. Needham Heights, Mass.: Simon & Schuster
- Karmani, S. (2005). Petro-linguistics: The emerging nexus between oil, English, and Islam. *Journal of Language, Identity, and Education*. 4(2), 87-102.
- Karmani, S. (2010). *On perceptions of the socialising effects of English-medium education on students at a Gulf Arab University with particular reference to the United Arab Emirates*. Unpublished doctoral dissertation. University of Exeter.
- Khan, T. (2004). *Teacher job satisfaction and incentive: A case study in Pakistan*. Retrieved June 7, 2010 from http://www.eldis.org/vfile/upload/1/document/0709/Teacher_motivation_Pakistan.pdf
- Kincheloe, J.L. (2007). Critical pedagogy in the twenty-first century: Evolution for survival. In P. McLaren & J. L. Kincheloe, (Eds.) *Critical pedagogy: Where are we now?* (pp 9-42. Peter Lang Publishing: New York.
- Kincheloe, J. L. (2008). *Knowledge and critical pedagogy: An introduction*. Montreal: Springer Science + Business Media B. V.
- Kincheloe, J. L. & McLaren, P. (2000). Rethinking critical theory and qualitative research; Moving to the bricolage. In N.K. Denzin & Y.S. Lincoln (Eds.) *The Sage handbook of qualitative research* (3rd ed.) (pp303-342). Thousand Oaks, London & New Delhi: Sage Publishings, Inc.
- Kincheloe, J. L., McLaren, P. & Steinberg, S. R. (2011). Critical pedagogy, and qualitative research; Moving to the bricolage. In N. K. Denzin & Y. S Lincoln (Eds.) *The Sage handbook of qualitative research* (4th ed.) (pp163-178). Thousand Oaks, CA, London, Delhi: Sage Publishings, Inc.
- Kincheloe, J.L. & Steinberg, S.R. (1998). Students as researchers: critical visions, emancipator insights. In, S. R. Steinberg & J. L. Kincheloe (Eds.) *Students as researchers: Creating classrooms that matter* (pp2-19). London, Bristol, PA: Falmer Press
- Kronstadt, A.K., 2004. Education Reform in Pakistan. (Congressional Research Service, Order Code RS2 2009). Library of Congress, Washington, D.C.
- Kvale, S. (2007). *Doing interviews*. London, Thousand Oaks, New Delhi, Singapore: Sage Publications Ltd.
- Levin, B. (2009). Reform without (much) rancor. In A. Hargreaves, & M. Fullan, (Eds). *Change wars*. (pp. 259-272). Bloomington: Solution Tree.
- Lewis, K. (2009, January 18). Schools fall short of world standards. *The National*. Retrieved March 6, 2010 from <http://www.thenational.ae/news/uae-news/education/schools-fall-short-of-world-standards#page2>

- Little, J.W. (1993, Summer). Teachers' Professional Development in a climate of Educational Reform. *Educational Evaluation and Policy Analysis*, 15(2), 129-151. Retrieved on May 11, 2010 from <http://www.jstor.org/stable/1164418>
- Mazawi, A.E. (1999). The contested terrains of education in the Arab states: an appraisal of major research trends. *Comparative Education Review*, 43(3), 332-352. Retrieved September 11, 2011 from <http://www.jstor.org/stable/1189122>
- McGroarty, M., (2002). Evolving Influences on Educational Language Policies. In J.W., Tollefson (Ed.) *Language Policies in Education, Critical Issues* (pp17-36). Mahwah, NJ, Lawrence Erlbaum Associates Inc., Publishers.
- McClure, K.R. (2009). Madrasas and Pakistan's education agenda: Western media misrepresentation and policy recommendations. *International Journal of Educational Development*, 29, 334-341.
- Megahed, N., Ginsbury, M., Abdellah, A. & Zohry, A. (2010, January). *Active Learning Pedagogies as a reform initiative: The case of Egypt. United States Agency International Development*. Retrieved September, 6, 2010, from <http://www.equip123.net/docs/E1-ActiveLearningPedagogy-Egypt.pdf>
- Midraj, S., Midraj, J., O'Neill, G. & Sellami, A. (2008, April 1). The affective factors and English language attainment of Arab EFL learners. English as a foreign language Report.[Electronic Version]. *International Journal of Applied Educational Studies*. Retrieved September 07, 2010 from <http://www.highbeam.com/doc/1G1-180029991.html>
- Miles, M. & Huberman, M.A. (1994). *Qualitative Data Analysis* (2nd edition). Beverly Hills: Sage Publications.
- Mills, A. (2008, September, 26). Emirates look to the West for prestige. *The Chronicle of Higher Education*. 5(5), A1. Retrieved July, 6 2009 from <http://chronicle.com/weekly/v55/i05/05a00101.htm>
- Naylor, H. (2008, October 9). The word on the street – same-same, but different. *The National*. Retrieved on August 18, 2011 from <http://www.thenational.ae/news/uae-news/the-word-on-the-street-same-same-but-different>
- Palys, T. (2009, March, 7). Purposive Sampling. *The Sage Encyclopedia of Qualitative Research Methods*. 2008. SAGE Publications. Retrieved on August 27, 2011 from http://www.sage-ereference.com/research/Article_n349.html
- Pennycook, A. (1994). *The Cultural Politics of English as an International Language*. Harlow: Pearson Education Limited.
- Pennycook, A. (2001). *Critical applied linguistics: A critical introduction*. London: LEA.
- Pennycook (2002), Language Policy and Docile Bodies: Hong Kong and Governmentality. In J.W. Tollefson (Ed.) *Language Policies in Education, Critical Issues* (pp. 91-110). Mahwah, NJ: Lawrence Erlbaum Associates Inc.

- Penta international (1996/2005). Retrieved July 1, 2011 from
<http://www.pentainternational.co.uk/AbuDhabi-2.pdf>
- Phillipson, R. (2009). *Linguistic imperialism Continued*. New York, London: Routledge, Orient Black Swan.
- Pring, R. (2000). *Philosophy of Educational Research* Continuum, London and New York.
- Punch, K.F. (2005). *Introduction to Social Research, Quantitative and Qualitative Approaches*. London, Thousand Oaks, New Delhi: SAGE Publication.
- Renzulli, J.S. (2006). Swimming upstream in a small river: changing conceptions and practices about the development of giftedness. In M. A. Constan & R. J. Sternberg (Eds.) *Translating theory and research into educational practice: Developments in content domains, large-scale reform and intellectual capacity*. pp223-254. New Jersey, London: Lawrence Erlbaum Associates, Inc., Publishers.
- Richards, J. C. & Rodgers, T. S. (1986). *Approaches and Methods in Language Teaching: A description and analysis*. Cambridge, New York, Melbourne: Cambridge University Press.
- Richards, K. (2003). *Qualitative inquiry in TESOL*. Hampshire & New York: Palgrave Macmillan.
- Rubeiz, G. M. (2010, November, 30). *By disempowering women, Arab states only punish themselves*. Retrieved on March 10, 2011 from
<http://beta.alarabiya.net/views/2010/11/30/127952.html> Published in Lebanon's *Daily Star*.
- Rugh, W. (2002, Summer). Arab education: Tradition, growth and reform. *Middle East Journal*. 56(3), 396-414 Retrieved on June 16, 2010 from
<http://www.jstor.org/pss/4329785>
- Ryan, T. (2005). When You Reflect, Are you Also Being reflexive? The Ontario Action Researcher, 8, 1, 2. Retrieved November 6, 2009 from
www.nipissingu.ca/oar/PDFS/V812E.pdf
- Sakr, A. (2008, May 12). GCC states competing in educational reform. *ArabReform Bulletin*. Retrieved on November 18, 2010 from
<http://www.carnegieendowment.org/arb/?fa=show&article=20501>
- Salama, S. (2010, April 19). FNC wants laws to preserve Arabic. *Gulf News.com* Retrieved on October 30, 2010, from
<http://gulfnews.com/news/gulf/uae/general/fnc-wants-laws-to-preserve-arabic-1.614239>
- Salama, S. (2010, October 6). Emphasis on foreign languages does not contradict UAE policies. *Gulf News.com*. Retrieved July 01, 2011, from
<http://gulfnews.com/mobile/news/gulf/uae/education/emphasis-on-foreign-languages-does-not-contradict-uae-policies-1.692334>

- Salama, S. (2010, October 6). Nahyan calls for emiratization of education to meet UAE needs. *Gulf News*, p. 3
- Saul, J. R. (2008, Winter). Reach every student: energizing Ontario education. Queen's Printer for Ontario. Retrieved October 9, 2010 from <http://www.edu.gov.on.ca/eng/document/energize/index.html>
- School quality, the key to the nation's future. (2008, August 31). *The National*. Retrieved on January 13, 2010 from <http://www.thenational.ae/vgn-ext-templating/v/index.jsp?vgnextoid=80cca803a4649210VgnVCM100000e56411acRCRD>
- Shah, A. (2011, March 6). Consumption and Consumerism. *Global Issues*. Retrieved on July, 2011 from <http://www.globalissues.org/issue/235/consumption-and-consumerism>
- Shaheen, K. (2009, November 18). FNC: use Arabic in federal universities. *The National*, 216, 2, 1.
- Shaheen, K. (2011, January 3). Call for early retirement for women. *The National*. Retrieved on March 4, 2011 from <http://www.thenational.ae/news/uae-news/politics/call-for-early-retirement-for-women>
- Shallal, M. (2011). Job satisfaction among the women in the United Arab Emirate. *Journal of International women's studies*, 12(13), 114-134. Retrieved August 18, 2011 from http://www.bridgew.edu/soas/jiws/Vol12_no3/8_Shallal.pdf
- Shohamy, E. (1998). Critical language testing and beyond. *Studies in Educational Evaluation*, 24(4), 331-345.
- Singh, P. & Doherty, C. (2004, Spring). Global cultural flows and pedagogic dilemmas: Teaching in the global university contact zone. *TESOL Quarterly*, 38(1), 9-42.
- Soy, S. K. (1997). *The case study as a research method*. Unpublished paper, University of Texas at Austin. <http://www.ischool.utexas.edu/~ssoy/usesusers/1391d1b.htm>
- Spada, N. & Lightbown, P.M.(1989,November). Intensive ESL programmes in Quebec primary schools. *TESL Canada Journal*, 7(1), 11-32. Retrieved September 30, 2010 from <http://journals.sfu.ca/tesl/index.php/tesl/article/viewFile/557/388>
- Stapleton, M.D. (2008, April 2). The education scenario. *Gulf News.com*. Retrieved July 1, 2011 from <http://gulfnews.com/in-focus/education/getex/the-education-scenario-1.27986>
- Steinberg, S. R. & Kincheloe, J. L. (Eds.). (1998). *Students as researchers: Creating classrooms that matter*. London, Bristol, PA: Falmer Press
- Swan, M. (2011, May 7). Growing shortage of skilled graduates. *The National*. Retrieved July 4, 2011 from <http://www.thenational.ae/news/uae-news/education/growing-shortage-of-skilled-graduates>

- Tellis, W. (1997). Introduction to case study. *The qualitative Report*, 3(2), July, 1997
retrieved on June, 2010 from <http://www.nova.edu/ssss/QR/QR3-2/tellis1.html>
- The Emirates Center for Strategic Studies and Research, (2010, October). Foreign
intervention in education undermines national identity. Retrieved January, 28,
2011 from
[http://www.ecssr.ac.ae/ECSSR/print/ft.jsp?lang=en&ftId=/FeatureTopic/Ayman
EL_Dessouki/FeatureTopic_1337.xml](http://www.ecssr.ac.ae/ECSSR/print/ft.jsp?lang=en&ftId=/FeatureTopic/Ayman_EL_Dessouki/FeatureTopic_1337.xml)
- The General Secretariat of the Executive Council in Abu Dhabi (1974). Retrieved
August 31, 2011 from
[http://gsec.abudhabi.ae/Sites/GSEC/Content/EN/PDF/social-and-human-
resources.property=pdf.pdf](http://gsec.abudhabi.ae/Sites/GSEC/Content/EN/PDF/social-and-human-resources.property=pdf.pdf)
- Tollefson, J.W. (1991). *Planning language, planning inequality: language policy in the
community*. London: Longman.
- Tollefson, J.W. (2001). Policy and ideology in the spread of English. In J. K. Hall &
W. G. Eggington (Eds.) *The sociopolitics of English language teaching* (pp. 7-21).
Clevedon: Multilingual Matters Ltd.
- Tollefson, J.W. (2002). Introduction: Critical issues in Educational Language Policy. In
J.W. Tollefson (Ed.) *Language Policies in Education, Critical Issues* (pp. 3-16).
Mahwah, NJ: Lawrence Erlbaum Associates Inc., Publishers.
- Troudi, S. (2007). The effects of English as a medium of instruction. In A. Jendli, C.
Coombe and S. Troudi (Eds.), *The power of language: Perspectives from Arabia*
(pp.3-19). Dubai: TESOL Arabia Publications.
- Troudi, S. (2009). The effects of English as a medium of instruction on Arabic as a
language of science and academia. In P. Wachob (Ed.), *Power in the EFL
classroom: Critical Pedagogy in the Middle East* (pp. 199-216). Newcastle Upon
Tyne: Cambridge Scholars Publishing. (Reprinted from TESOL Arabia
Publications, pp.3-19, 2007)
- Troudi, S. & Alwan, F. (2010). Teachers' feelings during curriculum change in the
UAE: Opening Pandora's box. *Teacher Development*. 14(1), pp. 107-121
- Troudi, S. & Jendli, A. (2011). Emirati students' experiences of English as a medium of
instruction. In A. Al-Issa & L. S. Dahan (Eds.) *Global English and Arabic: Issues
of language, culture and identity* (pp. 23-48). Oxford: Peter Lang.
- Tucker, M.S. (2009). Industrial benchmarking: A research method for education. In A.
Hargreaves & M. Fullan (Ed.) *Change wars* (pp. 116-133). Bloomington: Solution
Tree.
- Tyack, D. & Cuban, L. (1995). *Tinkering toward Utopia: A century public school
reform*. Cambridge, MA: Harvard University Press.
- Research center to guide education reform. (2009, February 25). *UAE Interact*.
Retrieved January 14, 2010 from

http://www.uaeinteract.com/docs/Research_centre_to_guide_education_reform/34476.htm

- UNESCO, (1953). *The use of vernacular languages in education: Monographs on Fundamental Education VIII*, Paris:United Nations educational, Scientific, & Cultural Organisation. Retrieved January 5, 2010, from <http://unesdoc.unesco.org/images/0000/000028/002897eb.pdf>
- Vogt, C. & Oliver, D. (1998). Kuwait University Faculty of Medicine students' attitudes toward English and an English based curriculum. In *US Department of education ERIC, Document ED 422 714 FL 025 231*, pp 1-27. Retrieved August 18, 2011 from <http://www.eric.ed.gov/PDFS/ED422714.pdf>
- Wagner, T. (2008,October). Rigor redefined. *Educational Leadership*. 66, (2). Retrieved January 6, 2010 from <http://www.ascd.org/publications/educational-leadership/oct08/vool66/num02/Rigor-Redefined.aspx>
- Wellington, J. (2003). *Educational Research Contemporary Issues and Practical Approaches*. London, New York: Continuum.
- Wiley, T. G. (2002). Assessing language rights in education: A brief history of the U.S. context. In J.W. Tollefson (Ed.) *Language Policies in Education, Critical Issues* (pp. 39-64). Mahwah, NJ: Lawrence Erlbaum Associates Inc., Publishers.
- Winter, B. (1995, December). Hindrances to educational reform: A teacher's perspective. *Organization for Quality Education*. 1-2. Retrieved on June 14, 2011 from <http://www.societyforqualityeducation.org/newsletter/archives/hindrances.pdf>
- Yin, R.K. (2003) *Case study research: Design and Methods* (3rd Ed.) Sage Publication.
- Zahoor, A. & Haq, Z. (1997). *Quotations from famous historians of science*. Retrieved October 16, 2010 from <http://www.cyberistan.org/islamic/Introll.html>
- Zellman, G. L., Ryan, G.W., Karam, R., Constatn, L., Salem, H., Gonzalez , G., Orr, N., Goldman, C.A., Al-Thani, H. & Al-Obaidli, K. (2009). *Implementation of theK-12 education reform in Qatar's schools*. Santa Monica,CA, Arlington,VA & Pittsburg,PA:Rand Corporation.